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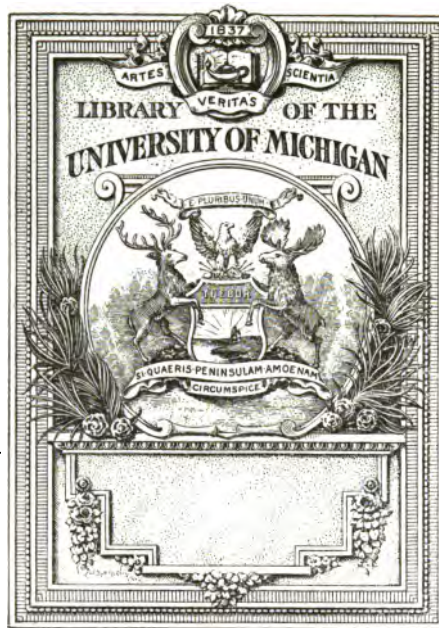
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SECOND ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH

OF

INDIANA,

FOR THE

FISCAL YEAR ENDING OCTOBER 31, 1883.

MEMBERS:

J. W. COMPTON, M. D., PRESIDENT Evansville.
WILLIAM LOMAX, M. D. Marion.
J. M. PARTRIDGE, M. D. South Bend.
W. W. VINNEDGE, M. D. Lafayette.
E. S. ELDER, M. D., Secretary and Executive Officer . Indianapolis.

TO THE GOVERNOR.

INDIANAPOLIS:

WM. B. BURFORD, LITHOGRAPHER, PRINTER, STATIONER, AND BINDER.

1884.

**RESOLUTION OF THE BOARD RELATIVE TO PAPERS PUBLISHED
IN ITS ANNUAL REPORT.**

Resolved, That no papers shall be published in the Annual Report of this Board except such as are ordered or approved for purposes of such publication by a majority of the members of the Board; and that any such paper shall be published over the signature of the writer, who is entitled to the credit of its production, as well as responsible for the statements of facts and opinions expressed therein.

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STATE OF INDIANA, }
EXECUTIVE DEPARTMENT. }

Received December 19, 1883, examined by the Governor, referred to the Auditor of State for verification of the financial statement, ordered to be printed by the Board of Public Printing, and filed in the office of the Secretary of State.

FRANK H. BLACKLEDGE,
Private Secretary.

OFFICE OF AUDITOR OF STATE, }
INDIANAPOLIS, February 11, 1884. }

I have examined the financial statement in the Second Annual Report of the State Board of Health and find it to correspond with the records of this office.

JAS. H. RICE,
Auditor of State.

Received the foregoing report February 11, 1884.

W. R. MYERS,
Secretary of State.

BOARD OF HEALTH REPORT.

To His Excellency, HON. A. G. PORTER,

Governor of the State of Indiana:

SIR—In accordance with the law establishing a State Board of Health, approved March 7, 1881, I have the honor herewith to transmit to you the Annual Report of that Board for the year ending October 31st, 1883, the same being the Second Annual Report of that Department.

This report consists of a statement of the expenditures of the Board during the year, an inventory of the property belonging to the Board, a list of books and publications in the Library of the Board, a list of circulars, pamphlets and papers issued by them, an outline of their work, a series of articles upon Sanitary Hygiene and kindred subjects, by professional gentlemen of high standing; also, a series of statistical tables of the returns of deaths, births, marriages, epidemic and contagious diseases, arranged to exhibit as large an amount of facts and convey as much intelligence concerning the hygienic condition of our State as is practicable; a list of health officers, physicians and accoucheurs in the various counties in the State, and throughout the entire report such remarks, suggestions, deductions and observations as the Secretary of the Board deemed of sufficient importance to include. The Secretary regrets that the very short time since he assumed the duties of his office, precludes the possibility of his presenting you with as complete a report as the importance of the Health Department of the State government demands.

A series of sanitary investigations have been inaugurated, which it is confidently expected will render the work of the Bureau for the next year more manifestly in the interests of the public than heretofore.

The formative period of the existence of the Board having passed, it now remains to demonstrate its great value to the individual taxpayer. No axiom is truer than this, "Public health is public wealth," yet it is only when the work of the sanitarian is brought to the fireside of the individual, that the truth of the proverb is properly appreciated.

The ordinary layman entertains a very inadequate conception of the laws of health. In all other sciences he may be well versed, but the science of hygiene is to him a "sealed book." His religion and philosophy, his social and political beliefs, are predicated upon the result of his own reasoning powers. Yet strangely he trusts the consideration of the laws that control his health, well-being and physical happiness, to others. The result is, that the vast majority of the commonwealth need instruction in the plainest precepts of self-preservation. Their dwellings and their surroundings, their school houses and churches, their business and occupations, their food and drink, their clothing, bedding, sleeping and repose; their work and their rest, and all their surroundings and attachments, need sanitary supervision. To do this, to point out the errors, to collect the results of the violations of the laws of health, to collate the facts, to make the proper deductions therefrom, and to present them to the public, impress them upon the minds of the people, to suggest the necessary methods of relief, and prevent the continuance or repetition of the errors, is the province of the State Board of Health. How *well* it will be done, and the effectiveness of the work, depends upon the intelligence, industry and capability, the efficiency and opportunity of the members of the Board, aided and abetted by the cheerful co-operation of the local health officers, the physicians, accoucheurs and citizens of the State.

State Boards of Health are a modern institution and the outgrowth of the demands of a modern civilization. Fifteen years ago Massachusetts organized the first State Board of Health in the United States, since which time twenty-seven other States have followed her example, so that we now have twenty-eight Boards of Health constituting departments in that many State Commonwealths. Besides these, those forming a part of the local municipalities are numbered by thousands, and sanitary science is now placed high among the most important objects of modern research.

It is not a reflection upon the intelligence of our ancestors that this outgrowth of the science of hygiene belongs to our age. Their thoughts and labors were engaged in solving the problems of providing subsistence for themselves and families; preparing their homes, draining the swamps, removing the dense forests and laying the foundation of the great prosperity that now blesses this land. Besides, living as they did, isolated, with no cities or large towns, they were free from many of the diseases that advancing civilization introduces.

The aggregation of human beings almost inevitably produces a vitiated condition of air, water and earth, in, around and upon which they congregate, hence the rigid regulations laid down by the "Divine Mosaic Law," given to the Hebrews upon the beginning of their journey to the "Promised Land."

The dangers to society resulting from human accretion are many, and require constant vigilance to protect against them. Nor are any exempt. In a large degree, each man is his brother's keeper. One person may be the essence of care and cleanliness, but if his neighbor violates the law of hygiene the punishment often falls alike upon the innocent and the offender.

A filthy homestead or surroundings invites disease into a neighborhood, and it falls upon the helpless by preference. An undrained pond or cess-pool is a centre of infection, and a source of poisonous exhalations to all within the circle of its baneful influence. An imperfectly sewered house or a polluted water supply, affects alike the young and the old. These dangers lurk in the most unexpected places, and among all classes. The hovel of the pauper and the humble home of the plebeian are frequently not less healthy than the palace of the affluent. The gross hygienic errors of the first two are often *less* dangerous than the insidious poisons which lurk in the imperfectly sewered apartments of the third.

Manufacturing interests, commercial pursuits, and the busy struggle for bread, tend to crowd population into smaller limits. The advance in the price of real estate necessitates the economizing of space and area. Tenement houses supplant the cottage and residence; the necessities of life become more costly, and the tendency is to a violation of the laws of health from sheer necessity. Sunlight, fresh air and pure water, become more and more reduced in quantity and quality, and the supervision of executive authority becomes necessary to prevent the outbreak of slumbering disease.

The value of legally organized boards of health has been amply demonstrated and their utility is recognized in all well-informed communities, where they have been established.

London formerly had a death rate of over forty per thousand. Since the organization of her Health Department the mortality has fallen to less than twenty-five per thousand. That of England and Wales, from 35.4 per thousand, in 1860, to 20.5 in 1880. Denmark, from 31.2 in 1860, to 20.4 in 1880. Sweden, from 31.2 in 1860, to 18.1 in 1880. Austria, from 39.6 in 1860, to 29.6 in 1880. Prussia, from 38.6 in 1860, to 25.5 in 1880. Switzerland, from 31.6 in 1870, to 29.9 in 1880. Italy, from 37.2 in 1870, to 30.5 in 1880. The German Empire, from 39.8 in 1870, to 26.1 in 1880. In all these countries, sanitary science has been fostered during the periods named.

In our own country, the death rate has been largely reduced, as demonstrated in Boston, New York, Philadelphia and many other cities, where observations have been carried on. No State has, so far, abolished its Board of Health after once fairly establishing it.

The following is a list of the State Boards of Health and other sanitary bodies and authorities in the United States, and various sanitary associations and authorities throughout the world:

SANITARY AUTHORITIES AND ASSOCIATIONS.

UNITED STATES OF AMERICA.

NATIONAL.

National Board of Health, Col. Geo. E. Waring, Jr., C. E., Secretary, Newport, R. I.

United States Marine Hospital Service, Dr. John B. Hamilton, Surgeon General, Washington, D. C.

American Public Health Association, Dr. Irving A. Watson, Secretary, Concord, N. H.

Sanitary Council of the Mississippi Valley, Dr. John H. Rauch, Secretary, Springfield, Ill.

STATE BOARDS OF HEALTH AND SECRETARIES.

Alabama, Dr. Jerome Cochran, Mobile.
Arkansas, Dr. J. A. Dibrell, Jr., Little Rock.
California, Dr. F. W. Hatch, Sacramento.
Colorado, (disorganized).
Connecticut, Dr. C. W. Chamberlain, Hartford.
Delaware, Dr. William Marshall, Dover.
Georgia, Dr. V. H. Taliaferro, Atlanta.
Illinois, Dr. John H. Rauch, Springfield.
Indiana, Dr. E. S. Elder, Indianapolis.
Iowa, Dr. R. J. Farquharson, Des Moines.
Kentucky, J. N. McCormack, Bowling Green.
Louisiana, Dr. S. S. Herrick, New Orleans.
Maryland, Dr. C. W. Chancellor, Baltimore.
Massachusetts, Dr. S. W. Abbott, Wakefield.
Michigan, Dr. Henry B. Baker, Lansing.
Minnesota, Dr. C. N. Hewitt, Red Wing.
Mississippi, Dr. Wirt Johnston, Jackson.
Missouri, Dr. J. C. Hearne, Hannibal.
New Hampshire, Dr. Irving A. Watson, Concord.
New Jersey, Dr. Ezra M. Hunt, Trenton.
New York, Dr. Elisha Harris, Albany.
North Carolina, Dr. Thomas F. Wood, Wilmington.
Oregon, (not yet appointed).
Rhode Island, Dr. Chas. H. Fisher, Providence.
South Carolina, Dr. Henry D. Frazer, Charleston.
Tennessee, Dr. C. C. Fite, Nashville.
Texas, Dr. R. M. Swearingan, Austin.
West Virginia, Dr. James E. Reeves, Wheeling.
Wisconsin, Dr. J. T. Reeve, Appleton.

FOREIGN COUNTRIES.

International Sanitary Congress. Meeting at the Hague in 1884. Prof. Van Overbeck De Meyer, Utrecht, Holland.

AUSTRIA.

Lower Austria. President of the Landes-Sanitäts-Rath: Friedrich Wilhelm Loriner, Director des K. K. Krankenhauses Wieden, Vienna.

Vienna. Stadt Physicat, Dr. Franz Innhauser, K. K. Sanitäts-Rath, am Hof, No. 7.

BELGIUM.

Antwerp, Bureau of Vital Statistics.
Brussels, Dr. E. Janssens, Sanitary Inspector.

CANADA.

Canadian Sanitary Association, F. N. Boxer, C. E., Secretary, Montreal.

Montreal, P. Q., Dr. A. B. La Rocque, Medical Officer of Health.

Ottawa, P. Q., Bureau of Vital Statistics.

Toronto, Ont., Bureau of Vital Statistics.

Toronto, Ont., Dr. P. H. Bryce, Secretary Provincial Board of Health.

Quebec, P. Q., Bureau of Vital Statistics.

Winnepeg, Manitoba, the Minister of the Department of Agriculture, Statistics and Health.

CHINA.

Pekin, Sir Robert Hart, Inspector General of Maritime Customs.

Shanghai, Dr. R. A. Jamieson, Inspectorate General of Customs, Statistical Department.

CUBA.

Havana, Dr. Daniel M. Burgess, U. S. Sanitary Inspector.

EGYPT.

Alexandria, Egyptian Sanitary Commission.

Cairo, Chief of the Department of Public Health.

ENGLAND.

Ladies Sanitary Association, Miss Rose Adams, Secretary, 22 Berner's st., Oxford st., W., London.

Local Government Board, Dr. George Buchanan, Medical Officer of Health, Whitehall, London.

Municipal and Sanitary Engineers' Association, T. Cole, C. E., Secretary, 6 Westminster Chambers, Victoria street, London, S. W., England.

Sanitary Institute of Great Britain, F. White Wallis, Secretary, 9 Conduit street, London, W., England.

National Association for the Promotion of Social Science, J. L. Clifford Smith, Secretary, 1 Adam street, Adelphi, London, W. C., England.

The Registrar-General, General Register Office, Somerset House, London, W. C.

Liverpool, Dr. J. Stopford Taylor, Medical Officer of Health Department, Municipal Offices, Dale street.

Liverpool, Dr. William Kelly, Dr. Robert Jones, Dr. J. Oliver, U. S. Sanitary Inspectors.

London, Dr. Saunders, Medical Officer of Health.

London, Dr. Joseph H. Hill, U. S. Sanitary Inspector.

Marseilles, Dr. Albenois, Directeur du Bureau Communal de Démographie et de Statistique Médicale, 9 Rue Venture.

Nottingham, Dr. Edward Seaton, Medical Officer of Health.

Ramsgate, Edward Walford, Medical Officer of Health.

Salford, Dr. John Tatham, Medical Officer of Health.

FRANCE.

Bayonne, Commission of Hygiene and Statistics.

Caen, Bureau D'Hygiene.

Havre, Bureau D'Hygiene.

La Rochelle, Dr. Gustave Drouineau, Secrétaire du Bureau d'Hygiene.

Paris, M. Fauvel, Inspector General Sanitary Service.

Paris, M. le Prefet de la Seine, Service de la Statistique Municipale, Avenue Victoria, 1.

Paris, Monsieur Patin, Secrétaire, Conseil d'Hygiene, Prefecture de Police.

Constantinople, the International Sanitary Council.

Rocheftort, Bureau D'Hygiene.

Roen, Bureau D'Hygiene.

GERMANY.

Berlin, Statistisches Bureau der Stadt, Breite Strasse 20a C.

Berlin, Dr. K. Becker, Director Imperial Bureau of Statistics.

Dresden, Dr. Victor Böhmert, Director Bureau of Statistics, Kingdom of Saxony.

Hamburg, Dr. Kraus, Medical Director.

HINDOSTAN.

Calcutta, Dr. K. McLeod, Surg. Maj., Medical Officer of Health.

HOLLAND.

Amsterdam, Dr. L. Scheltema Beduin, Secretary Board of Health.

HUNGARY.

Buda Pesth, Dr. L. Csatery, Medical Officer of Health.

IRELAND.

Dublin, Dr. C. A. Cameron, Medical Officer of Health.

Dublin, Dr. Grimshaw, Registrar-General, General Register Office, Charlemont House.

ITALY.

Genoa, Visto: Il Presidente, Della Giunta di Statistica.

Naples, Visto: Il Presidente, Della Giunta di Statistica.

Rome, Prof. Luigi Bodio, Direttore della Statistica Generale, Ministero del Commercio.

Rome, A. Cocchi, Direttore dell 'Ufficio di Statistica E. Stato Civile, Della Citter di Roma.

Venice, Onorevale al Sindaco, Ufficio di Statistica.

JAPAN.

Imperial Health Department, Sensai Negayo, Secretary, Tokio.

MEXICO.

Tampico, Dr. J. M. Main, Health Officer.

Vera Cruz, Dr. Robert Mainegra, U. S. Sanitary Inspector.

PORTUGAL.

Lisbon, Bureau of Vital Statistics.

Oporto, Bureau of Vital Statistics.

SCOTLAND.

Glasgow, Dr. Jas. B. Russell, Medical Officer of Health.

SERVIA.

Belgrade, Dr. Vladan Georgevitch, Medical Officer of Health.

SPAIN.

Barcelona, Sr. Inspector del Servicio Sanitario.
 Madrid, Pedro A. Torres, Director General.
 Madrid, Sr. Inspector del Servicio Sanitario.
 Valencia, Sr. Inspector del Servicio Sanitario.

SWEDEN.

Swedish Board of Health, General Direktören, Herr A. T. Almin, Stockholm.
 Stockholm, Dr. K. Limoth, Health Officer.

SWITZERLAND.

Berne, M. Krummer, Director Federal Bureau of Statistics.

TURKEY.

Constantinople, Conseil Supérieur de Santé.

MEMBERS OF THE BOARD.

The terms for which the members of the Board had been appointed having expired by limitation of law in February last, His Excellency, Governor Porter, re-appointed the old Board, which appointments were promptly confirmed by the Senate. The members of the Board and their terms of office are as follows:

JNO. W. COMPTON, M. D., President, Evansville; term expires February, 1885.

W. W. VINNEDGE, M. D., Lafayette; term expires February, 1885.

WM. LOMAX, M. D., Marion; term expires February, 1887.

J. M. PARTRIDGE, M. D., South Bend; term expires February, 1887.

E. S. ELDER, M. D., Indianapolis,

Secretary and Executive Officer.

The following subjects, upon which papers were desired, were assigned at the meeting held September 6, 1883:

"Disease Germs." Jno. W. Compton, M. D.

"Swine Plague, or Hog Cholera." J. M. Partridge, M. D.

"Syphilis." W. Lomax, M. D.

"On the Moore Plan of Ventilation." W. W. Vinnedge, M. D.

It has been decided by the proper officials that the amount of the office rent, clerk, salary, and printing expenses, excepting the publication of the Annual Report, must be taken out of the "Appropriation for the Expenses of the Board." This we regret, as it leaves but a small amount to be expended in "original research" and carrying on lines of investigation that are of great interest and value to the health and lives of the people of our State.

On March 15, 1883, Dr. Stevens, the first Secretary of the Board, was removed from office and Dr. E. R. Hawn, late Secretary of State, was elected to succeed him. On the 15th of August, 1883, Dr. Hawn died from an attack of cerebral apoplexy, and on the 6th of September, 1883, the present Secretary was elected to fill the vacancy. On that date the Board adopted resolutions of respect to Dr. Hawn's memory, a copy of which is published on pages 22-24 of this report.

In consequence of the facts, that during the winter of 1882-83 a report was circulated that the Legislature intended to repeal the law creating the State Board of Health and the change in the Secretaryship a little later, some confusion arose in the minds of health officers and other physicians, and for a time but little attention was paid to the legitimate work of the Board. Several counties ceased reporting. However, this is now largely removed, and but *two* counties have failed to make proper reports.

The establishment of the Bureau and the organization of the local Boards of Health were under the auspices of my predecessors, but there has been a continued demand for instructions, assistance and information in regard to the work. The health officers were unaccustomed to the work demanded of them, and in many cases not meeting with the sympathy from the medical profession that a spirit of generous devotion to the relief of human suffering should inculcate. This made it necessary for the Secretary to engage in a large amount of correspondence relating to instruction, suggestion and assistance in the work. The Board, however, has now become firmly established. Local Boards are organized and working in ninety of the ninety-two counties in the State, and in the remaining two counties I confidently expect the completion of health organizations within a few weeks.

It is earnestly desired that none but necessary changes be

made in the county health officers. When once a party, who is adapted to the position, has become familiar with the work of his office, and trained in sanitary and hygienic science, it is a misfortune to remove him and substitute a person who will necessarily have to spend considerable time in acquiring a knowledge of his work. For that reason I warmly recommend retention of persons who have demonstrated their fitness for the position of Health Officer. That *some* changes should be made I am well convinced, but in *no* case should political influence or personal preference displace an energetic, intelligent, faithful Health Officer.

At the time of the organization of the Boards of Health under the law of the State, the question of who were the proper parties for county health officers was an unsettled one, and nothing but an actual experiment could decide it. Now, sufficient time has elapsed to test the capabilities of those selected, and I am pleased to say that, with a very few exceptions, the selections made proved to be good ones.

The law provides that the State Board of Health shall hold meetings at least quarterly. This has been done. Besides these, special meetings have been held, viz.: April 19, July 26 and September 6, 1883.

The following is a financial exhibit of the Board for the year ending October 31, 1883:

Receipts.

Balance on hand November 1, 1882.....	\$1,099 31
By appropriation	5,000 00
Total.....	<u>\$6,099 31</u>

Expenditures.

1882.		
Nov. 8.	Dr. T. M. Stevens....Office expenses.....	\$75 50
Dec. 16.	Dr. T. M. Stevens ...Salary as Secretary.....	270 65
1883.		
Jan. 2.	W. H. Smith.....Clerk.....	250 00
Jan. 3.	Dr. T. M. Stevens ....Salary as Secretary.....	300 00
Jan. 13.	Dr. T. M. Stevens ....Salary as Secretary.....	225 55
Jan. 26.	Dr. T. M. Stevens ....Salary as Secretary.....	165 45
Jan. 3.	Dr. Wm. Lomax .....Expenses.....	8 55
Jan. 8.	Dr. J. W. Compton..Expenses.....	42 20

Expenditures—Continued.

Jan. 17.	H. W. Wiley	For analyses of sugar....	\$72 50
Jan. 17.	Burt P. Davidson.....	Services as stenographer	20 00
Jan. 22.	W. B. Burford.....	Printing	410 95
Feb. 9.	Fred S. Compton.....	Clerk.....	52 50
Feb. 9.	C. W. Smith.....	Clerk.....	37 50
Feb. 13.	Jno. Headlon.....	Furniture.....	14 50
Mar. 28.	W. H. Smith.....	Clerk.....	250 00
Mar. 24.	J. A. Wildman.....	Postage.....	50 00
Apr. 7.	Dr. T. M. Stevens	Salary as Secretary.....	272 90
Apr. 19.	Dr. J. M. Partridge..	Expenses.....	84 05
Apr. 21.	Dr. E. R. Hawn.....	Expressage	35 76
May 7.	Masonic Temple.....	Rent.....	60 00
May 19.	Harry Smith.....	Janitor.....	6 00
May 23.	J. A. Wildman.....	Postage.....	25 00
June 7.	Dr. E. R. Hawn	Salary as Secretary.....	50 00
June 7.	Dr. J. M. Partridge..	Expenses.....	84 10
June 7.	Dr. W. W. Vinnedge..	Expenses.....	31 84
June 7.	Dr. E. R. Hawn	Expressage	2 35
July 13.	Dr. E. R. Hawn	Salary as Secretary.....	350 00
July 13.	Dr. J. W. Compton..	Expenses.....	56 20
July 21.	J. L. Reiley.....	Clerk.....	416 66
July 25.	Dr. J. M. Partridge..	Expenses.....	34 10
July 26.	Dr. Wm. Lomax	Expenses.....	17 11
July 27.	W. B. Burford.....	Printing.....	695 40
July 27.	Dr. J. H. Hibberd...	Expenses.....	6 65
July 27.	Harry Smith.....	Janitor.....	11 00
Aug. 7.	Masonic Temple.....	Rent.....	60 00
Aug. 22.	J. A. Wildman.....	Postage.....	12 00
Sept. 8.	Fred'k Compton.....	Clerk.....	40 00
Sept. 8.	Dr. J. M. Partridge..	Expenses.....	36 60
Sept. 8.	Dr. J. W. Compton ..	Expenses.....	70 80
Sept. 14.	Gas Company.....		20
Sept. 15.	J. L. Reiley.....	Clerk.....	175 00
Oct. 6.	J. A. Wildman.....	Postage.....	30 00
Oct. 6.	Fred'k S. Compton...	Clerk.....	67 50
Oct. 6.	J. L. Reiley.....	Clerk.....	250 00
Oct. 19.	Fred'k S. Compton...	Clerk.....	55 00
Oct. 19.	Mrs. Gunkle.....	Clerk.....	12 50
Oct. 19.	J. A. Wildman.....	Postage.....	25 00
Oct. 31.	W. B. Burford.....	Printing.....	397 15

Expenditures—Continued.

Oct. 31.	Dr. E. S. Elder	Salary as Secretary	200 00
Oct. 31.	A. L. Wright & Co..	Carpets.....	27 80
Oct. 31.	F. M. Stewart.....	Clerk	135 00
Oct. 31.	J. L. Reiley.....	Clerk	69 79
Total Credits.....			\$6,099 31
Total Debits.....			<u>6,099 31</u>

Of the \$1,099.31 balance on hand at the beginning of the fiscal year, there was owing \$690.70, leaving really a balance of only \$408.61.

The Board has supplied all counties with Death, Birth, Marriages and Disease Blanks, free of cost, and the office rent of the Board is now deducted from the annual appropriation.

The following property belongs to the office, viz:

One office desk.

One small writing desk.

• Two tables.

One ruling desk, rulers, pens, etc.

One plain bookcase.

One filing case.

One case of drawers.

Three office chairs.

Eleven walnut chairs.

One stool.

One step-ladder.

One hat rack.

Carpets for two rooms.

Matting for three rooms.

One washstand, bowl, pitcher, looking-glass.

One dozen towels, comb and brush.

Four inkstands; ink—red, green and black.

One copying press, sponge cup and copying book.

One post office scales.

One clock.

One hektograph.

One invoice book.

Three cuspidores, one waste basket.

One scrap book, four letter files.

Gas fixtures in office.

The following books, pamphlets, etc., are in the library of the Board, viz:

Reports of State Boards of Health, as follows:

Michigan, 1871, '72, '73, '74, '77, '78, '80, 81, '82.

New York, 1867, '68, '71, '72, '73, '80, '81, '82.

Illinois, 1878, '79, '80, '81.

Tennessee, 1877, '80.

New Jersey, 1881.

California, 1870, '71, '76, '77, '80.

Wisconsin, 1876, '77, '78, '80, '81, '82.

New Hampshire, 1882, '83.

Massachusetts, 1870, '71, '72, '73, '74, '75, '76, '77, '78, '79, '81, '82.

Iowa, 1881.

Connecticut, 1878, '79.

Rhode Island, 1879, '80, '81, '82.

Louisiana, 1872, '73, '75, '77, '78, '79.

Arkansas, 1881.

Minnesota, 1875, '76, '77, '78, '79, '81.

Kentucky, 1880, '81, '82.

Mississippi, 1879.

South Carolina, 1881, '82.

Delaware, 1880.

Colorado, 1880.

One Webster's Unabridged Dictionary.

One Dunglison's Medical Dictionary.

One Thomas' Pronouncing Medical Dictionary.

One Cholera Epidemic of 1873, in the United States.

One Report of the National Board of Health, 1879.

One Hygienic and Medical Reports, Navy Department, 1879.

Prevention and Restriction of Small Pox, Michigan Board of Health."

Transaction of South Carolina Medical Association.

Milk; Its Adulteration, Analysis, etc., John Morris, M. D.

Transactions of Michigan State Medical Society.

Transactions of medical and Chirurgical Faculty, State of Maryland, April, 1882.

Hot Springs of Arkansas, by J. T. Jelk.

Revised Statutes of Indiana, 1881.

House Journal, 1881.

- Acts, 1881, Indiana.
Notes on Contagious Diseases of the Eye, E. K. Agnews.
Transactions of Alabama State Medical Association, 1877, '80 and '81.
Rules of Medical Association of Alabama.
Duties and Powers of Local Boards, New York Board of Health.
Our School Houses, by T. M. Chittenden, M. D.
Land Drainage, by J. T. Reeves, M. D.
Some of the Preventable Causes of Insanity, by Walter Kemper, M. D.
Vital Statistics, by Rev. J. D. Plunkett, M. D.
The Sanitary Problems of Chicago, by J. W. Rauch, M. D.
Health in Common Schools.
Dangers to Health.
Diseased Meats and their Relation to Health, by P. Wenzel M. D.
Annual Report of Indianapolis Board of Health, 1879, '80, '81, '82.
Reports of Cattle Commission, 1882.
Kerosene, by J. T. Reeves, M. D.
Report on Method and apparatus for Testing Inflammable Oils, by H. H. Elliott, M. D.
Reports of Indiana State Medical Society, 1870, '71, '73, '74, '75, '76, '77, '78, '80, 81, '82, '83.

The following supplies are on hand, viz:

- 3,200 books, birth, death and epidemic disease returns.
950 marriage returns.
900 blank quarterly reports.
 $\frac{1}{2}$ ream wrapping paper.
2,500 envelopes.
2,000 letterheads.
100 blank returns, health officers reports.
150 tabulating blanks for office.
350 diphtheria blanks.
350 scarlatina blanks.
350 typhoid fever blanks.
350 small pox blanks.
50 blank surveys of school houses.

The following pamphlets, circulars and blanks have been issued from this office within the year, viz :

December, 1882—Pamphlet containing extracts from reports of Health officers and letters and extracts from eminent sanitarians, relating to Public Hygiene.

March 17, 1883—Circulars announcing election of Dr. E. R. Hawn as secretary of the Board, in place of Dr. T. M. Stevens, removed.

June 30—New copy of Rules and Regulations of the State Board of Health of Indiana, with a nosological table. Some changes will be made and a new one will probably be issued.

July 26—Circular in regard to necessity of placing cities and towns in good sanitary condition in view of the advent of cholera.

October 1—Sanitary survey of school houses.

Blank reports of Diphtheria.

Blank reports of Scarlatina.

Blank reports of Small Pox.

Blank reports of Typhoid Fever.

During the last legislative session, bills were introduced to repeal the law providing for a State Board of Health. In order to enable the members to estimate correctly the value and necessity for the perpetuity of the Board, the secretary of the Board prepared a pamphlet containing collations from various sources and letters and extracts from prominent physicians and sanitarians, regarding the work of the Board, and statistical tables from the forthcoming report. The pamphlet was an instructive one, and, doubtless contributed in influencing the vote which sustained the law.

The following gentlemen have kindly furnished the Board papers for publication upon the subjects designated, for which we are obliged. Two others have been promised, and may yet be sent in:

First. "Why Boards of Health Should Be Non-Partisan," by Benjamin Newland, M. D., Bedford, Ind.

Second. "Public Health," by H. V. Sweringen, M. D., Fort Wayne, Ind.

Third. "The Hygienic Surroundings of the Early Settlers of Indiana," by M. M. Latta, M. D., Goshen, Ind.

Fourth. "The Hygiene of Farmers' Houses," by J. F. Hibberd, M. D., Richmond, Ind.

Fifth. "Some Thoughts on Education," by Budd V. Sweringen, M. D., (deceased).

Sixth. "Restraint or Non-Restraint in the Treatment of the Insane," by W. B. Fletcher, M. D., Superintendent Hospital for Insane of Indiana.

Seventh. "The State and Its Insane," by Joseph W. Rodgers, ex-Superintendent Indiana Hospital for the Insane.

Eighth. "The Effect of Education upon the Eyesight of School Children," by L. P. Worrell, M. D., Terre Haute, Ind.

Ninth. "Draining and the Public Health," by George W. Sloan, M. D., Indianapolis.

Tenth. "Swine Plague or Hog Cholera," by J. M. Partridge, A. M., M. D., South Bend, Ind.

Eleventh. "A Ready Method of Determining the Healthfulness of Drinking Water," by Joseph E. Rodgers, M. D.

Twelfth. "Diphtheria," by J. McLean Moulder, M. D., Kokomo, Ind.

Thirteenth. "Syphilis," by Wm. Lomax, M. D., Marion, Ind.

Fourteenth. "Cerebro Spinal Fever," by S. W. Pearse, M. D., (Health Officer), Mount Vernon, Ind.

Fifteenth. "Disease Germs," by J. W. Compton, M. D., Evansville, Ind.

Sixteenth. "On the Moore Plan of Ventilation," by W. W. Vinnedge, M. D., Lafayette, Ind.

MEMORIAL

TO

DR. E. R. HAWN.

Presented at a meeting of the State Board of Health, held
September 6, 1883.

ADDRESS OF PRESIDENT COMPTON.

GENTLEMEN—It becomes my solemn duty to refer to the death of our esteemed colleague and Secretary of this Board, Dr. E. R. Hawn. We can all bear witness to his genial nature, to his warm-hearted greetings, to his interest in all that pertained to the success of the Indiana State Board of Health. He had just concluded a two years' occupancy of the important office of Secretary of State, when he was elected to serve in the responsible office of Secretary of this Board, with the concurrence of all the members. He had just distributed a new set of blanks on which physicians and others were to report to County Health Officers. These new blanks, as far as I have been able to learn, have been accepted by the profession with much favor, and their improvement over the old blanks was freely acknowledged. I can say that I believe that our late Secretary had not an enemy among the members of this Board and had he been spared longer, the meetings of the Board would have been characterized by harmony and good fellowship. It now becomes the duty of this Board to present suitable resolutions of respect to the memory of one whose professional loyalty and official acts have merited our high respect for honor and competency, and whose memory we should ever cherish.

The following preamble and resolutions were offered by Dr. Wm. Lomax and ordered to be spread upon the record:

GENTLEMEN—Since our last meeting the stern invader, Death, has visited our official circle and robbed us of the services of our executive officer. The friendly greetings of this quarterly reunion are saddened by the absence of our genial Secretary. The cordial welcome which has heretofore ushered us into this

room has given place to an oppressive silence. The empty chair, the vacant office, the impressive stillness, herald with emphasis the death of our lamented colleague. Vivid recollections of the many amiable and companionable qualities of mind and heart, as well as earnest devotion to official duty, conspicuous in the manner and habits of Dr. Hawn, come unbidden to every mind and make this a most fitting occasion for an unfeigned tribute of respect to his memory. The Doctor's intercourse and official relations with his fellow members were ever characterized by the most respectful consideration and gentlemanly deportment; an enlarged philanthropy and a laudable ambition to render his profession and official prerogatives as vividly beneficial to the public health as possible, prompted an unremitting application of thought and industry to the complicated duties of his office.

The first work after coming into the office was to simplify and render as convenient as possible, the blank forms for collection of statistics, so as to admit of their being filled by the physicians with the least possible expenditure of time and labor. The blanks were paid for out of the general appropriation made for defraying expenses of the State Board of Health, and were distributed gratuitously to the local Boards, in order to remove all objections to the operations of the law growing out of the consideration of expense. This conciliatory measure, it was hoped, would remove opposition and enlist the co-operation of all interested in the general health work of the department. A ruling motive with him was to secure the harmonious co-operation of the medical profession throughout the State, in a systematized work of carrying out the purposes of the law, and to obtain full and accurate reports of all matters affecting the lives and health of the people. To this end he urged the Secretaries of the several County Boards to see that the physicians in their counties should report promptly the material facts required by the law, and provided for in the blanks. A due vigilance of the sanitary welfare of the State, when threatened by an invasion of cholera, prompted him to convene an extra session of the Board to devise such measures as best might protect the people against the wide spread ravages of that dreadful scourge, and promptly to issue a circular of instruction to subordinate officers

embodying the best preventive regime known to sanitary science.

At this meeting he called the attention of the Board to the sanitary condition of the unfortunate inmates of the several charitable and penal institutions of the State, urging it as a legitimate duty to see that the provisions for health in these institutions were such as they should be. The laudable interest taken in this benevolent movement led the Board to appoint him to make a tour of inspection to these different institutions with a view of ascertaining their real condition and of making such improvements in this direction as any necessity might demand. But this duty he did not live to perform. He contemplated having the Secretaries of the County Boards to inspect the poor houses, hospitals, station houses and county jails of their respective counties, with a view to correct such defects in their appointments and sanitary conditions as might be found to exist, and to enforce such changes as might be calculated to improve the health of their inmates. An interesting and profitable field for sanitary investigation and labor.

But he was suddenly cut off in the midst of developing plans, and the fervor of fond hopes of promoting the public health and hygienic welfare of the State. And while we lament with deepest sorrow his untimely death, it gives us real pleasure to record our high appreciation of the sincerity and earnestness with which he devoted his energies to the humane objects of the Bureau, of which he was the executive officer. Therefore,

Resolved, That by this dispensation of Providence the Indiana State Board of Health has lost an earnest supporter, a valuable member, and an efficient officer, and each member of the Board has lost a warm personal friend, and that we will gratefully cherish his memory and seek to emulate his virtues.

Resolved, That by his death the medical profession at large has lost an active and earnest co-worker who was an honor to his profession, and the State has lost an honest and efficient officer and a patriotic and devoted citizen.

Resolved, That we express to the family of our deceased brother our most earnest sympathy in their sad bereavement, and that a copy of this preamble and resolutions be sent to them, and the same be entered on the records of this Board.

SCHOOLS AND SCHOOL HOUSES.

The Public Schools of Indiana have long and justly been a pride to her citizens. The magnificent provisions made for the education of her children, the large and ever accumulating permanent fund of nearly ten millions of dollars, sacredly dedicated to the Common Schools, are the admiration of all; and for years past political conventions have vied with each other in framing resolutions and planks commendatory of the Common School system of our State. From personal observation as a health officer and physician, and an experience as pupil and teacher, I was induced to believe that there were probably many hygienic errors in the location, construction and condition of the ten thousand school houses in the State, and among the seven hundred thousand pupils admitted thereto. And with a view of ascertaining accurate information in regard to the same, the following form for a report of a "Sanitary Survey" of the school houses throughout the State was prepared. The Board approved the same, and the several county health officers were supplied with copies enough for each of the school houses in their counties.

SANITARY SURVEY OF SCHOOL HOUSE,

In District No.....County, Ind.

By.....of.....

Question.

1. Where located..... Size..... No. of rooms..... Material.....
2. Is the building in good repair?..... Hight of ceiling,.....
No. of children attending,.....
3. Is it on a public road?
4. Is it on high, well drained ground?
5. What is the size of the yard?.....
6. Is it fenced?.....
7. Does water stand in ponds in the yard?.....
8. Is the house well ventilated?..... 9. How?.....
10. What are the means for heating?.....
11. If stoves are used are they perfectly *safe*, and in good order?.....
12. How many windows?..... Size.....
13. Are the windows to the *left* or *right*, *behind* or in *front* of the pupils?.....
14. Are the blackboards placed *between* the windows?.....
Are the surfaces of the blackboards *dead* or *glossy*?.....
15. What is the source of water supply?..... If from wells, are they *kept* clean and in good order?
16. Is the source of water supply *safe*, and protected from contamination by *cess-pools*, *overflows*, *stables*, *hog-pens*, *privies*, *stock and barn yards*, *foul*, *standing or running water*?.....
17. Are there any privies?..... Are they in *good order*?.....
18. Have the privies *vaults*?..... How often are they *disinfected* or *cleansed*?.....
19. Are the pupils *required* to be *vaccinated* before entering the school?.....
20. Are pupils from houses where *infectious* or *contagious* diseases are prevailing *excluded* from the schools?.....
21. Do you consider the children *overworked*?
22. Are *all* the doors hung so that they shall swing *outwardly*, as provided by Section 2155 *Revised Statutes of Indiana*?...
23. What suggestions can you make to render the hygienic condition of the school more favorable?.....

.....COUNTY.

SANITARY SURVEY OF SCHOOL HOUSE,

In District No.....

By.....

TO PERSONS MAKING THIS SURVEY.

Please fill *all* the blanks, and answer *all* the questions. It may seem that some of these questions are very simple, and others superfluous, but remember that when we get returns from *ten thousand school houses*, that much valuable information will be derived, and many practical deductions made. Every question upon this blank is a practical one, and suggested by the observation of intelligent educators, and based upon good reasons. Especial attention is directed to *questions 15, 16, 17, 19, 20 and 22*. We want a report as soon as possible, as we desire to incorporate a synopsis of the observations in the next annual report of this Bureau. I hope that a spirit of generous rivalry and enthusiasm will induce the persons entrusted with this work to strive to excel in the *promptness, correctness* and completeness of this survey. Remembering that if we can be the means of saving the *life or health* of some school child, we shall have accomplished a good mission.

Very truly,

E. S. ELDER, M. D.,

Secretary Ind. State Board of Health.

October 1, 1883.

CIRCULAR LETTER.

INDIANA STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY,

No. 21, Masonic Temple.

INDIANAPOLIS, October 1, 1883.

To County, City and Town Health Officers :

DEAR DOCTOR—Inclosed please find blanks for the report of a sanitary survey of the school houses under your supervision. The intention of the State Board of Health is, if possible, to secure a report of the hygienic condition of every school house in Indiana, and that without expense to the County, City or Town Boards of Health. We send you all necessary blanks, together with addressed return envelopes. Our idea is to have the County Boards of Health ask the physicians employed by them to give professional attention to the destitute in the various townships; make these surveys in addition to their other duties and without additional compensation. Where no such physicians are employed, the Township Trustee can usually secure the services of some liberal spirited physician, and patron of the schools, to do the work without cost; where this can not be done the School Director can fill out the blank. In cities and towns we apprehend that no difficulty will be experienced, as the School Boards are generally ready and willing to adopt any measure that will benefit the condition of the schools, and the city or town health officers can readily make the necessary examination. I would suggest that you call upon the editors of the different papers in the county, city or town, and inform them of the proposed work, and my experience with the newspapers justifies me in the belief that they will cheerfully give their influence in favor of any undertaking designed for the good of the public, especially the public schools.

This is but the beginning of a series of efforts to practically demonstrate the great value of the Health Bureau of the State. I am fully satisfied that when we bring our work near the

homes of the people, and prove to them that sanitary supervision means the preservation of their health and lives, thus directly inuring to their financial benefit, our work will be appreciated and our Bureau become justly popular. No more inviting field is presented us than the common schools; the results of this survey, when completed, will be an astonishment, and I am sure that we will then be able to do very much to prevent inconvenience, suffering and disease, and render the necessary privations and duties of school life as tolerable as enlightened sanitary and hygienic science furnishes us the power of doing. A spirit of generous emulation and rivalry should prompt you all to return as complete and speedy a survey as possible. Proper acknowledgments will be given for efficiency in this work. If possible make these returns by November 1, 1883.

By order of the Board:

E. S. ELDER, M. D.,

Secretary and Executive Officer.

In consequence of some unavoidable delay in the preparation and mailing of the blanks, they were not sent out sufficiently early to have the survey complete in time for this report. The following counties, however, have sent in complete returns, viz.: Hancock, Fayette, Clark, Dubois, Lagrange, Jennings, Switzerland, Newton, Warren, White and Vermillion. By the surveys received from these counties the opinion for the necessity of hygienic supervision of the schools was fully confirmed, and realizing that it would be impossible to utilize the information for this year's report, the following order was sent to all the County Health Officers:

INDIANAPOLIS, November 6, 1883.

DEAR DOCTOR:—Look over the sanitary survey of the school houses in your county, and where hygienic faults are found with them, order them corrected at once.

E. S. ELDER, M. D.,

Secretary Indiana State Board of Health.

The County Health Officers were requested to enlist the interest of the school authorities in making the survey, and in many cases the teacher made the examination and report. It

is with great pleasure that we testify to the prompt and cheerful co-operation of the various county school superintendents, trustees and teachers. The reports are exceedingly instructive and suggestive, and will be presented in full next year. I am gratified to know that in all instances where hygienic wrongs were found, upon calling the attention of the authorities to the matter, they have indicated a desire at once to rectify them. From the answers to many of the questions, I am satisfied that the teachers of the schools are fully informed upon and alive to the importance of the hygienic demands in and around the school rooms. The school houses of the past generation bore a similarity to the dwelling houses of that period. They were both as plain, unassuming and inexpensive as it was possible to have them. The log or frame school house of our early boyhood days was a low, square structure, illy ventilated, poorly lighted, and imperfectly warmed, often not underpinned, with no effort at ornamentation. The seats, a set of high desks extending around the room, the front designed for the backs of the seats of the smaller pupils. Black-boards arranged with no regard to light; the lots upon which the buildings were situated were unfenced and undrained; no ornamentation, no walks or means of cleaning the feet, or keeping out of the mud. A spring or neighbor's well was the source of water supply. No outhouses or water closets, in short, it was as uninviting and forbidding a place as the severe poverty of the age could supply. The only redeeming feature about the system was the very short annual term of school (from ninety to one hundred days). With an increase of wealth and advancing civilization, these houses are giving way to a superior class, and instead of being a mere refuge against the inclemencies of the weather, they are being made as healthful, cheerful, and attractive as enlightened sanitary science and æsthetical taste demands. I think, that as civilization advances, a love of cleanliness, beauty and refinement marks its course, and a sure index of the advance of a people in culture and progress, is the improved condition of their schools, churches and public buildings.

The selection of a *site* for a school house is an important one. For a small, country house there should not be less than one acre, on high, well drained ground, with the surface smooth enough to allow all the water to drain off. It should have a

south front, as that insures sunlight and dryness, and the *kind* of light so desirable, viz.: the *northern*. Good gravel walks should lead to the doors and to outhouses in the rear. The yard should be covered with grass and set with shade trees, and it should be made an object of beauty and attractiveness, for it is very important to cultivate the taste and love for the beautiful as well as other branches. The house should be large and well built. No school house should be more than *two* stories high, and no basement should be used for school purposes. It should have high ceilings, with not less than fifteen square feet of floor space for each pupil, and two hundred and ten cubic feet of breathing air space for each one. These proportions are those assigned by the committee of award for the prize for the best "school house plan." This award was given by the Sanitary Engineer. If the house has a south front there should be plenty of windows in the north and east sides, but none in the south or west sides. The desks should be of the most approved pattern, and of different sizes and heights, graded to the size of the pupils. The pupils should never be seated on seats so high that their feet are off the floor. The blackboards should be placed in the end or sides of the room where there are no windows, and the surface of those should be a *dead black*, because a glossy surface insures injury to the eyes. The building should have means of being properly heated and of maintaining a uniform temperature. In country school houses stoves will be resorted to. The chimney should be placed in one end of the room and the stove in the opposite, so as to furnish by the pipe and drums, if necessary, as large a radiating surface as possible. Registers should be placed in the chimney for the ingress and egress of air, which should always be admitted in sufficient quantities to have the room pure and sweet. The windows should be hung with weights, in order that they may be easily lowered or raised. A cloakroom should always be provided, with heat for drying wet wraps and garments. Suitable provision should be made for washing the hands and faces of children. We are of the opinion that the Superintendent of Public Instruction should, under the supervision of a competent architect and sanitary engineer, and the State Board of Health, prepare specifications, instructions and estimate of costs of a series of school houses, ranging in price from eight hundred to fifteen thousand dollars, and that the

State should compel the adoption of some one of those plans in the construction of school houses with the public funds. Provisions should be made for an abundant supply of pure water, which should be sacredly guarded from pollution. (See statement on pages 33-34.)

It may seem like supererogation for me to say that every school house should have water-closets separate for the sexes, yet the sanitary surveys already returned to this office show that *twenty* per cent. of them have no water-closets, and of those that have them *forty* per cent. were in bad order. *Seventy* per cent. have no vaults, and *eighty-five* per cent. were *never* cleaned or disinfected. It is a standing reproach upon our civilization that school children should be compelled to attend to the calls of nature under the most painful embarrassment of having no more provision made for privacy than is given the brutes of the field, or that a pure, neat, clean, innocent girl should have to go into a revolting, filthy, nauseous water-closet upon such an errand.

We can not too strongly condemn such a condition of affairs, as alike detrimental to health, morals and delicacy. A few pounds of sulphate of iron and a few minutes work semi-weekly would keep the water-closets of school houses from becoming a revolting nuisance or a source of ill health.

DANGEROUS DISEASES.

School children afflicted with loathsome or infectious diseases should be excluded from the schools, and when diphtheria, scarlet fever or small-pox is prevailing in a household, *no one* from that place should be allowed to *attend* school. Very many instances are recorded where a disregard of this precept resulted in innocent parties becoming infected with fatal sickness. *No child* should be *allowed* to enter school until it has been *successfully vaccinated*. This is now acknowledged in all cities and towns, and they have generally, by municipal ordinance, enforced it. And in eighteen counties in Indiana, where small-pox prevailed within the year, so well was this rule enforced that in but one county did any school child die from the malady, and the health officers in that county wrote that that was because "it was not successfully vaccinated."

In the city of Indianapolis, although smallpox has had *thirty-five* distinct outbreaks in the last two years, yet not a school

child has suffered. Previous vaccination has been demanded of all children admitted to her schools.

These are a few suggestions which force themselves upon us, and we think they deserve careful consideration. If they seem plain, simple and commonplace, remember that in very many places they have been unheeded. In fact, we feel safe in saying that they are *generally* unheeded. A few weeks ago the statement was made at a meeting of the Medico-Legal Society of the city of New York that in that city alone "3,000 school children annually lost their lives because of the foul and poisonous air which they have been compelled to breathe." A sanitary inspection of the twenty-eight school houses of the city of Indianapolis, made less than thirty days ago, revealed hygienic faults in sixteen of them and a polluted water supply at ten of them. Analyses by a chemist selected by the Board of Education demonstrated that the water from a large majority of the wells examined was grossly polluted. During the survey a member of the Board of Education, a physician and philanthropist, entered a basement room, filled with little children, in one of the largest school buildings in the city. The air was so revolting that he remarked, "This room smells worse than a woodpecker's nest." He instantly ordered the children removed to another room above ground.

If these conditions exist in New York and Indianapolis, under the most approved methods of conducting schools, what must be the condition in districts where no special attention has been given to school hygiene? We here give a few extracts from the surveys of some of the wealthy counties. The first says: "A description of one country school house applies to all. A flat box, with its four corners resting on stones, a roof, six windows, a flue for smoke, and door to go in and out of, all placed in a corner of ground too poor for farming; often unfenced and undrained, wanting in anything ornamental or tasty to please the eye." Number two says: "I have ordered the well at No. 7 abandoned at once, and advised the removal of the house on account of its proximity to a cemetery. The graves are within a few feet of the house, and any well that could be dug in the yard could not be farther than one hundred feet from the graves. The school yard is between the cemetery and a creek, and the water would naturally flow from the cemetery under the school yard to the creek, and through sand and

gravel at that. So I think it impossible to have a well to supply the school with drinking water uncontaminated, in that vicinity." A conclusion which I heartily indorse. Another health officer says of a school house: "I recommend that the well be cleaned, that new vaults be dug, and located in the rear corners of the school yard farther from the well. Also that the back part of the yard be ditched where the water now stands in ponds." A teacher reports: "One outhouse in terrible order, about six or eight feet from the window. It should be moved." Another one writes: "We need not exactly more ventilation, but better. We get plenty of fresh air, but at an expense of innumerable draughts. The pupils are very much troubled with cold, engendering more serious disease." Still another writes: "*Our* house is not underpinned; it is a difficult matter to keep the proper temperature on this account." An accomplished teacher writes: "Our water supply is from a well. At a low stage the water does not taste well. There are two large grave yards within a few hundred yards, which I have viewed suspiciously. I do not know that they influence the water in the well. The location is gloomy, and the house and surroundings in bad repair." A lady teacher writes: "We have no water-closets. If we only had *one* it would save many little feet from the wet and cold in running to the woods." Another one says: "I would suggest that we have a new stove, that the leaky roof be repaired, that the house be replastered, that the holes in the floor be stopped, that the broken windows be repaired, that we have a water-closet built and a well dug, that the yard be fenced and drained," etc. There is evidently a great need of something to be done. Another says: "Oh, if we only had gravel walks so that the children could clean the mud off their feet, which get so wet and dirty." We would suggest here that it is slow work trying to advance pupils until they are raised out of the dirt and filth.

The Principal of a school in a flourishing town in the western part of the State writes: "House (fifty by sixty) four rooms, no well, get our water where we can. No water-closets. Doors all open inwardly. I think we ought to have a vault dug and a good well. The first room upstairs is thirty by fifty, ceiling eleven feet, has ninety-eight pupils, three windows at each end of room. The second upstairs room is twenty-five by thirty, eleven feet ceiling, contains sixty-eight pupils. Three windows

at each end. Third upstairs room twelve by twenty, eleven feet ceiling, two windows on west side, has thirty-eight pupils, jams them in. The primary room, twenty-five by thirty, twelve and a half feet ceiling, sixty-four pupils, three windows on south side, blackboards between the windows and doors, some having glossy surfaces. Our Trustee is a thorough M. D., so that *our school houses* are good enough to please the doctors' pocket books."

"Better ventilation" and a supply of pure air is the almost universal demand. These extracts are but a fair sample of the statements received with the reports of the sanitary surveys, and they conclusively demonstrate the necessity of hygienic supervision of the schools. We believe that the patrons of the schools only need to have their attention called to these matters to insure their hearty co-operation in abating the wrongs. People, after all, love their children and only need to see these evils as we see them, in order to appreciate the harmfulness of them.

It is the intention of this Board to prosecute this line of work and continually strive to induce a reform in, and the adoption of a higher standard of practical school hygiene. By so doing we feel that many promising children will be saved from disease and death, and many more rendered pleasant and happy by our efforts. We recognize the fact that these considerations are among the simple and primary ones. The course of study, the length of school sessions, the confinement of young children, the posture and manner of seating, the recreation, the practice of gymnastics, the study and practice of calisthenics, music, etc., and a host of other questions obtrude themselves; but we shall endeavor to remedy the grossest evils first, trusting to an advancing civilization and a "new era" in school hygiene to cure the lesser.

WHY BOARDS OF HEALTH SHOULD BE NON-PARTISAN.

BY BENJAMIN NEWLAND, M. D.

Probably no legislation has ever been achieved under more adverse circumstances than that now known as sanitary legislation.

Every one acquainted with the history of this class of legislation can appreciate the difficulties, apparently almost insurmountable, which were encountered in the attempt to bring this important matter before various General Assemblies. At the outset, its advocates were met by popular ignorance upon the subject, as dense as it was unreasoning. The voter, no matter how degraded in intellect, could appreciate the direct benefit of having a physician at his bedside when disease laid its hand upon him, but could not or would not understand the theory that the prevention of the disease from which he suffered was, by the observance of certain sanitary laws, more easily attainable than its cure could possibly be by medical treatment. The average reasoning on the matter was like that of the Arksonian on the subject of repairing the roof of his house—in dry weather it did not need roofing, and when it rained he could not roof it. The most ignorant man could perceive the effects of quinine poured down his throat, but could not learn the utility of drainage which might have prevented malaria from entering his system. For ages the only relief had been supposed to be from therapeutics, and the modern doctrine of the superiority of prophylactics was difficult to beat into the heads of those not specially educated on the subject. Nor was this popular ignorance without other causes than those of preconceived opinions. The theories upon which sanitary legislation rests were, until the latter half of the present century, simply theories, to a large extent incapable of practical demonstration.

The vast tables of statistics, compiled by the labors of hundreds of patient searchers after truth, had not yet been created. The microscope, with its wonderful powers of bringing to human knowledge the minutæ of disease and revealing its remote causes, was deemed merely a sort of plaything for scientific dilettanti. The whole wide range of medical practice was considered to be necessarily pursued by every physician, devotion to any special branch was held to imply a leaning toward quackery, and thus men who might have been peculiarly adapted to some branch of research in medical science were deterred from making those special and minute investigations which have accomplished so much in the last three decades. The great truth that "prevention is better than cure" seemed in human affairs to be only inapplicable to the very science which had given rise to the proverb. Those who by any chance had advanced up the pathway of scientific research from the dark valley of ignorance into the clear sunlight of the great truths of sanitary science were regarded as dreamers, and when called upon for the proofs, which unfaith always demands, were unable to give the necessary demonstrations of the verity of their theories. So the ignorant were fain in many cases to believe that their escape from disease was due to some obscure and miraculous intervention of

providence, rather than from their unconsciously obeying some hygienic law. Thus popular ignorance upon the one hand was supplemented by the lack of scientific demonstration upon the other, both forming barriers against any advance toward proper sanitary legislation. Years of the most patient labor were found to be essential for the education of the masses upon the subject of hygiene, and the most earnest application and observation at last brought scientific proof that the enforcement of sanitary regulations could modify, if not eradicate, certain species of disease. When this work was accomplished, the sanitarian fondly imagined that his labors were ended. It would seem to a man of broad views that when it had been demonstrated with reasonable certainty that the sufferings of disease and death itself could be averted by complying with natural rules of health, that legislation for so self-evident a necessity as the compulsory enforcement of such rules would follow as a matter, not of course, but of overwhelming popular demand. But the sanitarians, when they came to present their views to legislative bodies, encountered great opposition. The first and principal argument urged against them came from the great increase of expenditure which would be rendered necessary in carrying out fully scientific plans for the improvement of public health. Cities pointed to their immense municipal debts already incurred which burdened the people, and claimed that further expenditure would end in bankruptcy. States pointed to hospitals for the insane, institutions for the blind, deaf and dumb and other unfortunates, and asked to be relieved from the responsibility of assuming greater burdens on account of humanitarian views. Nor did the fact that sanitary improvements would save far more than their cost avail to soften the asperity and resistance with which the propositions of the sanitarians were met. It seemed almost useless to show that the loss of time of the sick, the loss of trade in the commerce of a city, the heavy expenditure for medical services by the citizens, which were involved by a visitation of small-pox to a city, in a single year would amount to ten-fold more than the expense necessary for a thorough vaccination and revaccination which would absolutely and completely have eradicated the disease from the community. Thus the humanitarian and the sanitarian were met with rebuffs year after year. even when statistics had established the soundness of their position, and a large portion of the people had come theoretically to accept their doctrines, although apparently unwilling to show their faith by their works by causing a great popular demand for sanitary legislation. Added to this apparent public apathy on this subject, even after the scientific truths in regard to hygiene had become thoroughly recognized, there was another reason which caused legislators to hesitate before entering upon untried legislation, namely, the desire of general assemblies to limit expenditures to the absolute necessities of administering the government, either of a State or Nation. All who have closely watched the course of Congress and State Legislatures are well aware how greatly this parsimony of legislative assemblies has stood in the way of expenditures which were demanded in the name of common humanity and simple justice. For example, it has taken ten years to bring an Indiana Legislature to a recognition of the fact that there were hundreds of her citizens to whom the State turned a deaf ear. I refer to the incurable insane. These unfortunates were confined in jails, poor-houses, log pens, cellars, garrets, in all kinds of noisome and loathsome dens and dungeons. Their condition was too horrible for contemplation. They numbered almost a thousand persons; yet year after year Legislature after Legislature failed to give any heed to their necessities, although the fact was again and again brought to their attention that the providing of hospitals for the relief of this class would not only tend to the amelioration of their condition, and perhaps in rare instances produce a cure, but also that the ex-

pense involved in the humane treatment would be far less than to maintain them in their present terrible condition.

Yet, notwithstanding all, it has taken fifteen years to bring a Legislature of Indiana to a realization of this truth and cause one to make provision for this class, in accordance with the demands of justice, humanity and economy, and even yet this provision is not a *fait accompli*. The whole history of sanitary legislation is full of just such instances, and I might multiply examples *ad infinitum*.

Again, each party fears, when in control of a Legislature, that any addition made to the expenses of the State will be used as an argument against it in some future political campaign, and so feels loth to vote to increase expenses, even when convinced of the absolute necessity of such increase, for fear such necessity would not be capable of satisfactory explanation to the people.

Therefore the advocates of the formation of Boards of Health—the first step in sanitary legislation—always found that an appeal to partisanship in such a contest would be equivalent to losing the battle before it commenced. They appealed to legislators not as partisans but as men of broad and liberal views, capable of appreciating scientific truths and understanding the true economy of sanitary legislation.

Had it rested upon a Legislature to pass a bill for the creation of a Board of Health as a partisan measure for the benefit of a political party, the crack of doom would have caught some doctor buttonholing a Representative from the back districts and prayerfully entreating him to build up his immortal fame and make his party invincible with the masses, by creating a Board of Health which would provide places for his political friends, while the member's response would have rung out amid the crash of dissolving elements, "I'm agin it." Every physician in this State who has watched the creation of the Board of Health in Indiana will bear testimony that the bill establishing it was urged, not as a partisan measure, but as a public necessity, demanded by the advanced science of the age, that it was urged by physicians of every political party, and supported by the members of the Legislature, not as partisans, but with a view to benefit the citizens of our State, independent of political affiliation. I ask, then, if, after the common cause made for the establishment of these great enterprises tending toward the improvement of the race and the amelioration of its sufferings, made by men of all political views, in the name of common humanity, is it not indeed a lamentable exhibition in any State or nation, that such a Board, created for the common good, should be made the vehicle of partisan preferment?

Were they Democrats, Republicans or Nationals who made the great struggle against popular ignorance on the subject of sanitary legislation and educated the people up to the standard of realizing the scientific truths of hygiene in its highest development? What partisan was it who, wandering over the meadows of England, noticed the modification of small-pox when transmitted through an animal? What were the politics of that scientist, bending over his microscope, who first recognized the *bacillus anthracis*? What were the partisan relations of those political economists who first demonstrated to the minds of legislators that the prevention of disease could be accomplished at far less public expense than the loss occasioned by its occurrence in epidemic form? Who were the learned physico-politicians that urged upon legislative bodies the establishment of Boards of Health? These questions are no more absurd than the picture presented by the creation of a partisan Board of Health. The very origin of such a Board should forbid partisanship in its construction. The struggles made by physicians without regard to party, who labored to create the popular demand for the establishment of such in-

stitutions by removing common misapprehension on the subject, should prevent it. The labors of scientists throughout the whole world, in the great cause of the preservation of human life, should deter anyone from narrowing the results of their investigations to the organization of a political machine.

The untiring and personal efforts of enlightened physicians of all parties which were essential to bring legislators to recognize the necessity of the organization of such a body as a Board of Health should not be met with a narrow-mindedness which would bend such efforts merely to the aggrandizement of some political party or the personal purposes of some partisan leader. Thus, in recognition of the very causes which led to the establishment of Boards of Health in this country they ought to be non-partisan in their construction—open to men of recognized ability in this department of science, be their politics what they may.

But not only should the struggles which led Legislatures to this step toward broad sanitary legislation relieve Boards of Health from the taint of partisanship, the very nature of the institutions themselves should be a guarantee against it. Boards of Health are clothed with a three-fold character. The object of their creation should make them statistical, scientific and humanitarian, and they should be all this in the aim and scope of their action.

Boards of Health are, to a large extent, vehicles for the transmission of statistics. They are the means by which the cold logic of figures is applied to the progress of human existence. Upon the information obtained through these Boards is to be based future legislation for the improvement of the public health. The wide range which may, and often should be, taken by these statistics, is scarcely recognizable by one who has not made this matter a special study. In their highest development they should give us data upon the entire science of hygiene, both prophylactic and organoplastic. The drainage, the water supply and its character, the soil, the climate, the elevation, the character of the vegetation, the outbreak of diseases and the surroundings previous to their occurrence, the number of births, the number and causes of deaths, all these subjects and many others should be made matters of statistical information to be gathered by Boards of Health. It may be said these details are often dry, uninteresting, and seem to be of no practical benefit. Who is it that shall determine the value of a fact scientifically and accurately stated? Who shall say that the long, patiently-noted statistics of a Tycho Brahe shall not some day be illumined by the brilliant genius of a Kepler? Nearly every advance so far made on the pathway of sanitary science has been accomplished by the aid of statistics patiently gathered and brought to public notice. The very existence of a Board of Health would have been impossible without the influence of these same dry statistics.

Scientists are not alone in their recognition of the value of statistics, for we see every decade, as the census of the various nations is taken, a larger number of subjects given out for inquiry and statistics furnished upon them.

This doctrine of general average has become one of the favorite methods among modern scientists, and at least has the appearance of being correct in principle.

By the careful study of statistics a subject far more obscure than the science of medicine has been brought into the domain of practical science. I refer to the advances made in the science of meteorology, by means of the statistics furnished by the Signal Service of the United States Government. If anything so variable and, seemingly, so independent of fixed laws as the weather can be reduced to approximate certainty and reach a point where its character can be confidently predicted, and this has been accomplished simply by means of the patient investigation of statistics, what may we not expect in the science of hygiene, when the data

necessary for its comprehensive study shall be, in their collection, co-extensive with the limits of the civilized world? The collection of these data in their entire scope is one of the first and great duties devolving upon a Board of Health. Can this work be best accomplished, or, indeed, can it be accomplished at all, by a body circumscribed within partisan lines and acting as a piece of political machinery? The answer must be emphatically in the negative.

Not only should a Board of Health, properly organized, bestow great attention upon the collection of statistics, it should also ascend from this mere plodding to a plane demanding the highest attributes of genius. It is from its organization and in its nature bound to enter the domain of science, and here its duty is two-fold.

It must address itself to the detection of the causes of disease hitherto undiscovered, and it must study the best methods of preventing these causes from operating, and see that its deductions are properly carried out in actual practice.

The discharge of the first of these duties involves research in an immense range hitherto but little explored. The statistics being gathered, their generalization and reduction to the demonstration of certain facts is of itself a labor worthy of the most exalted efforts of scientific scholars, and the patience required for this reduction of statistics to results is not the least faculty which must be exercised in the successful pursuit of this branch of hygienic study. United to this patience must be a broad and clear intellect, capable of grasping in their entirety a seemingly meaningless array of figures, and from them deducing the great truths of medical science. In this vast field of research labor alone is nothing, genius alone is nothing, but genius and labor must be united and vitalized by an earnest and overpowering desire to reach the highest truths of science. In addition to this generalization from statistics, there is another feature of scientific work in this particular which must not be di-regarded, and which demands a high degree, not only of mental, but physical acumen. I refer to microscopical study. Pasteur and Koch have demonstrated the fact that the germs of disease may exist in other fluids than the blood, and become reproduced in the human system after being seemingly dormant for years.

What a boundless and unnavigated sea here stretches before the true scientist who desires to investigate. Its shores are seemingly limitless.

Is the theory of Koch true that consumption—that fell destroyer of millions—is merely the production in the human system of the *bacillus tuberculosis*—a well defined and readily recognizable microphyte or microdeme?

Has Eklund a sufficient basis for the assertion that the whole range of miasmatic or malarial diseases are traceable to the existence of the *Lymnophyalis hyalina*—a variety of schizomycete—in the human blood? Can the polymorphism of bacteria explain the periodicity, the epidemicity, and the perigration of Asiatic cholera?

These and kindred questions arise in the mind of every student of the theories of contagion and infection, as enunciated by the modern microscopists. Problems like these, reaching deep down into the causes of disease, must be studied by the scientists of to-day by the aid both of the microscope and of statistics, and the truth or falsity of the great germ theory of disease must be demonstrated.

Nor does the labor end here. When the discoveries of the causes of disease are made, then the best means of prevention must be sought. When the cause of a disease is even approximately known no true physician will resign the hope that means to limit, if not prevent, such disease can be discovered. What immense possibilities lie in this direction of scientific research! Who shall say, if the theory of Koch be true, that consumption can not be eradicated? These may seem to be

speculations on the border of dream-land, but who shall place a limit to the probabilities of science? But will any reasonable man say that a physician who is capable of seriously giving his attention to scientific problems, such as I have enumerated, can have time also to devote to schemes of partisan politics for the elevation of some political boss?

The whole system of sanitary regulation is humanitarian in its objects, and Boards of Health are but a means toward the attainment of the ultimate desideratum—the salvation of human lives. In this regard their tendency is in a true sense toward the highest and noblest philanthropy. As factors in the great plan for the advancement of the human race they should be open to all who are willing to labor toward that end. They should be ennobled by their ultimate aim, not degraded by a narrowness which would limit their researches to men held within certain party lines. What would be thought of any of the vast benevolent organizations which extend their ramifications throughout American society, and which have done so much for humanity, if they should propose to limit their membership to voters of a certain party?

No one ever heard of a Democratic or a Republican lodge of any of these various orders. The idea, if advanced, would be received with well-deserved scorn and derision. Is it any less ridiculous to attempt to limit to the members of a certain party the men who are to be the statisticians, the scientists and the humanitarians in the cause of sanitary progress?

Is this great and world-wide advance of medical science, in which no party has any political interest, but which takes in the whole of our common humanity in its expected benefits and benevolent purposes, to be made a thimble-rigging scheme for partisan objects or to subserve the personal aims of some narrow-minded politician? Better should it perish in its inception.

So far I have endeavored to illustrate the fact that theoretically a partisan Board of Health is an absurdity as well as a disgrace, but if we turn to the practical side of the question, such a Board is not only all that it has been shown to be theoretically, but is worse than useless.

In the first place such a Board does not enlist the best talent.

To say that a partisan Board included among its members the men best qualified in the community for its work would be to make the absurd assertion that the intellect of a county, state or nation was contained all in one or all in the other political party. A Republican statistician may have applied himself especially to the collection and study of sanitary statistics, yet an adverse administration must shut him out of a Board of Health because he does not train with the party in power. A scientist who happens to believe in the principles of the Democratic party may have made the study of the causes of diseases a life labor, yet he must be excluded if his party is not in power. The practical result of the organization of partisan Boards of Health is to exclude one-half of the ability of a county, state or nation from any participation in their labors for the advancement of the sanitary department of medical science. It is to narrow their usefulness by having among their members men less competent than could be obtained by taking a wider range for selection. And so with each recurring change in the political complexion of the administration we may look for a change in the organization of the Boards of Health. However deplorable this change may be in its results, it will be the natural and necessary sequence of any political victory in regard to all institutions organized upon a partisan basis.

When the science of public health is comparatively in its infancy, such a result can not be other than lamentable. Few men have the training and education

properly to perform the duties devolving upon a Board of Health, and each year should render them more familiar with the requirements of such an institution. Their fitness for the positions they occupy increases as experience gives them a more thorough knowledge of the necessities of their official action; but the experience of victories in all political parties is sufficient to show any thinking man that all this will count for nothing if it is understood that a Board of Health is partisan in its formation. It will change the character of its partisanship as often as the county, state, or nation changes the politics of its administrative officers, and new and comparatively untried men will take the places of those who perhaps have devoted years to the study of the questions of public health.

Again, one of the first and great duties of a Board of Health and a predominant element of its success, as I have shown heretofore, is the collection of statistics. For these statistics a board must rely to a large extent upon local physicians of more or less prominence in the communities where they reside. If it can awaken them to the necessities of an effort in this direction, and can secure their co-operation in the collection of statistics, a long step has been taken toward insuring successful work in this particular. As a matter of course, these desired co-workers are of various political parties, and is it reasonable that they will lend their time and efforts to the success of an institution which they consider to be organized, not as a great, broad, liberal effort for the advancement of medical science, but simply as a partisan body for the aggrandizement of certain political schemers?

Good sense and practical experience both teach the absolute futility of such an expectation. You can not expect men of opposite politics to co-operate for the success of any institution which they regard as the agent and offspring of one political party. Not only theoretically, but practically, a partisan board of health lowers the standard of sanitary science and excites disrespect, if not disgust, among the people.

The whole effort of sanitary science is toward awakening not individuals, but entire communities, to an understanding of its necessity. It depends upon men who have sufficient education to appreciate its truths, and power enough to demonstrate to the masses its utility. For here, at least, under our system of government, the question must rest. You can not enforce any law in advance of a public demand for its enforcement. Before Boards of Health, then, can accomplish any practical results, the people must be taught that the protection of their health and life by proper sanitary regulation, is as much a matter of public concern as the protection of their civil rights and political liberty. The inculcation of this doctrine is not altogether new, and to a large extent certain analogous principles have been recognized from the earliest times.

Sic utere tuo ut alienum non laedas was an approved and well recognized maxim of Roman jurisprudence, and has come down to us from the days of Justinian. This maxim gave rise to the common law of England for the abatement of nuisances, and the statutes of our own States on this subject are founded upon its principles. But the recognition of the necessity for the abatement of nuisances is only a step toward that at which the sanitarian aims. The abatement of a nuisance is a precaution after the injury is accomplished, and health or life perhaps sacrificed. The step in advance, which the sanitarian desires the public to take, is to abate through a Board of Health that which will result in a nuisance before it becomes such nuisance.

Thus, sanitary legislation for the protection of public health, becomes in the highest sense the exercise of the police power of the State. It involves the right of the State to abridge, to a certain degree, the liberty of the individual, for the pur-

pose of accomplishing the greatest good to the greatest number. The police power of a State, unless expressly surrendered by statute, is, under recent decisions of the United States Supreme Court, almost without limit. At present it very nearly resembles that great power at one time involved in the right of eminent domain. In fact it needs an almost unlimited power like this to enable a State to trench so far on personal liberty as to make vaccination practically compulsory, to stop and absolutely destroy certain kinds of manufactures within city limits, to compel men to expend vast sums of money in constructing certain kinds of drains for their houses.

In fact, the whole range of sanitary legislation shows that Boards of Health have been invested, not only with administrative, but to a large extent with certain judicial powers, and these powers are to be exercised in what most nearly concerns the rights and liberties of the individual. When such a Board comes practically to exercise these powers, and they are exercised by certain partisans, will it not often seem to people whose liberties and rights are thus invaded for the public good, that this is simply an insupportable political despotism?

Nay! has not that feeling already arisen in certain portions of this country? The great powers with which Boards of Health are invested should make the performance of their duties absolutely above any taint of suspicion that partisan motives control their actions. This is simply impossible so long as they are organized upon a partisan basis, presupposing that they are to be used to accomplish certain political results. This is no theory, but a practical statement of fact. The organization or a partisan Board of Health is one step, and one great step, toward the overthrow of the entire system.

An eminent American writer on the subject of public health thus describes, not what would theoretically be the effect of the organization of a partisan Board of Health, but what its effect actually was: "Men elected by party caucuses were treated as competent to administer the science of health and to solve the questions of sanitary precaution. * * * * It is no wonder that the exercise of sanitary authority soon became a greater peril than miasma and contagion; that political doctors became the agents of partisan and mercenary officials. * * * * That of the forty-eight health wardens and assistants more than one-half were the keepers of corner groggeries, and the other half were partisan repeaters and bullies; that nearly the whole sanitary force was, for utility, worse than a sham, and was, in reality, a scandal and a peril to a civilized community."

It may be said that all partisan Boards are not so bad as this, but human nature is much the same everywhere, and the final state of any partisan Board of Health will closely resemble the description above, if any party is allowed to control the organization of such an institution. It becomes at once a menace to the community at large, instead of a public benefactor and a philanthropic organization. Let our Boards of Health be organized upon a partisan basis, and their organization so continue, and the death knell of the institution is already sounded. Let the people become imbued with the idea that certain partisans are infringing, in the smallest degree, on their rights and liberties, and the day will shortly come when the party not in power will denounce the whole system in a party platform, and then an appeal to the people, if once successful, will result in the abolition of the entire system of Boards of Health. While such action might savor of demagogism and be deplorable in its results, it would mete out a well-merited fate to any Board of Health organized by partisans for political motives, and conducted by political doctors for the advancement of the interests of some scheming politician. Just as surely as any Board of Health, state or national, continues to be a partisan organization, called into being to provide places for political pets, and for

the return on their part of a political *quid pro quo*, just so surely are its days numbered whenever the issue is fairly presented to the people; and some party will be certain to present such an issue before any great length of time elapses. Away with the narrow-mindedness which would conceive of such a Board, much less organize one. A great philanthropic institution, organized for the common benefit of all citizens, should be as broad as the humanitarianism which caused its creation.

Science is broad. Partisanship is narrow. Philanthropy is vast as the blue heavens which rise above our heads. Partisanship is limited to political ends, and often to mere personal elevation. A Board of Health can only be worthy of respect among the physicians who recognize its necessity, and among the masses for whose ultimate benefit it is created, when it is as broad in thought and in construction as the principles which underlie its creation. God forbid that political chicanery and partisan maneuvering should invade an institution which is founded upon the most advanced theories of modern science; which has been erected by the labors of hundreds far beyond our shores; which has been finally brought to successful completion by the earnest, warm-hearted efforts of thousands of true philanthropists without distinction of party.

Theoretically and practically a partisan Board of Health is a shame to any community, an outrage upon public decency, a pestiferous sore on the body politic.

PUBLIC HEALTH.

BY H. V. SWERINGEN, A. M., M. D., FORT WAYNE, IND.

Having been invited by the worthy Secretary of the Indiana State Board of Health to contribute a short article for the present annual report of the same, I respectfully submit to the readers thereof the few following scattered thoughts:

There has been so much written, spoken and published upon the subject of public health within the last decade that the topic is considered by many to be somewhat hackneyed and as becoming more or less monotonous. But this is an idle objection, constituting no valid reason why the subject should pass out of public view. Like scriptural truths, it requires, and will bear, constant attention.

Our visits to the grocer, butcher and baker, our daily attentions to the wants and necessities of our physical being also become more or less monotonous, so that at times it appears that to eat, drink and sleep is the sum total of human existence; and yet, who will say that the constant and regular satisfaction of these requirements should cease because of the mere frequency of their repetition?

It should be the first duty of a Board of Health to educate the people upon the importance of *preventing* disease. It has often been to me a wonder that even among people of intelligence there should be so much dependence upon and so much expected from the mere administration of medicine. "A teaspoonful every three hours" is expected not only to remove quickly the disease, but, also, its cause, no matter what that cause may be, or whether or not it is still in constant operation, well known to the patient, who, alone, perhaps, has the power to control it.

I do not desire to be understood as being in sympathy with that class of physicians who, with Dr. O. W. Holmes as their leader, would cast our *materia medica* into the sea were it not for the mercy they have on the poor fishes contained therein. On the contrary, I have as much confidence in certain medicines in certain affections as I have in the religion of Jesus Christ, or in the fact of my own personal existence. I know—absolutely *know*—that in not a few instances, when I have given the proper medicine, under the proper circumstances, I have accomplished the object desired, by and through its administration.

Our *materia medica* and therapeutics, although very imperfect and unsatisfactory, should not, in all cases, be held responsible for the ignorance, lack of judgment and ill-success of the physician. I have seen constitutional treatment do wonders, act marvelously, and I regard the proper exhibition of medicine of as much importance and attended with as much, if not more, skill, than the proper performance of a mechanical surgical operation. But I have never seen the “teaspoonful every three hours” change an organic into a functional disease or raise the dead.

In proportion as we become acquainted with nature and her requirements, do we advance, as a race, in civilization and intelligence. That her requirements are inexorable is as true as that effect will inevitably follow cause. That nature has been, by ignorance, grossly misinterpreted, and, by carelessness and intent, grossly violated, the history of the past and the facts of the present clearly prove.

In no field of research has there been made greater progress than in that of *preventive medicine*, *sanitary science* and *hygiene*. The true physician of the present day seeks rather to *prevent* disease than to cure it. The public, too, is becoming slowly, but surely, aware that proper sanitary measures will lessen sickness, and, as a consequence, *taxes*. That they *diminish* taxes, by substituting prevention for clumsy methods of palliation and perpetual attempt at cure. That these measures deal with causes themselves and not with their effects alone, and that the expense which they involve will not by any means measure up to the amount which their neglect occasions.

Public health is public wealth according to Dr. Franklin and common sense and experience. We no longer consider epidemics as a manifestation of God's special anger, but the natural result of a prolonged disregard of the laws of nature. And yet we still need an occasional outbreak of cholera, diphtheria, small-pox, or some other equally fatal disease in order to impel us to *act* upon the all-important subject of the prevention or repression of disease.

We all have a vital interest, selfish though it may be, in each other's health and sanitary surroundings. No man can wrap himself up in the exclusiveness of his own healthful premises and consider himself perfectly safe. Germs or bacilli from the lowly, filthy hovel or from the swampy, undrained marshes are as liable to be wafted into the palaces of the rich as to remain within the confines of their original habitation. While it is true that we can not always trace the parentage of a given case of typhoid fever, small-pox or diphtheria, and that the germs or bacilli which constitute the peculiar poison of these diseases have as yet baffled chemical and microscopical detection, we are warranted certainly in attributing them to causes and conditions which are as loathsome and disgusting as the diseases themselves.

It will not be expected of me to discuss, in a limited article, the various aspects of the question of public health. It is a mighty subject, as any man may realize who will study it seriously: He will find that it will grow wonderfully in his contemplation of it, and that it comprises much that has yet been unwritten, unspoken, and probably unthought.

The site and soil of habitations, the arrangement and building of houses, the water supply and its character for purity, the supervision of nuisances, the disposal of the dead, the arrest of infectious diseases, the regulation of trades, the removal of excreta, the condition of open lands, forests and rivers, cleanliness, drainage, food, sunshine, ventilation, etc., etc., are all competent topics to be studied under the general head. I will but casually notice a few of them.

VENTILATION

Should be sufficient to carry off all respiratory contaminations of the air, so that the occupants of a room may not be obliged to breathe "something of the insides" of each other. Our German physicians either do not comprehend the importance of proper ventilation in the sick room, or they carelessly allow their nurses and attendants to exercise their own notions, founded in ignorance and superstition. I have occasionally been called into these families when their regular physician could not be had, and have found the patients invariably under a mountain of feathers, in a room about 10x12 in size, with perhaps one window, and that not only entirely closed, but pieces of cotton occupying the little crevices at the sides, so as to shut out every little breath of God's pure oxygen. Upon one occasion I was informed that the family physician had so ordered this condition of things, and that he would feel along the sides of the window for a breath of air, and, if detected, would instantly obstruct it with due form and ceremony. Does it not seem strange that we should have in the profession men who run "catching cold" into such ridiculous extremes?

There is one affection, so common among children, often proving fatal in the earlier months of infancy, that might many times be prevented, if they were early accustomed to breathing a pure atmosphere. I allude to bronchitis. Mothers often wonder why it is that their children "take cold," when they have taken such pains to keep them well clothed, little dreaming that the cause of the disease lies not in the want of proper clothing, but in the close, vitiated, unevenly heated atmosphere of the room, or to the sudden changes of the temperature and the character of that which the child *breathes*—air. The mother may pile onto the child all the clothes there may be in the house, and yet if she simply takes that child from its accustomed room into an adjoining one having a higher or lower temperature, that child's respiratory passages will soon become irritated and inflamed, and bronchitis will result. It is not in any manner a question of sufficient or insufficient *external* clothing. I have not infrequently traced the cause of this complaint to the custom of keeping the babe down stairs in the sitting room during the day, and of taking it up stairs, into a different temperature, for the night. For the first six or eight months of infantile life, and more especially during the fall, winter and spring months, the child should be kept in one very large room of an even temperature, just *comfortably* warm, with the lower sash of one of the windows raised, and the aperture thus occasioned completely closed with a tightly fitting piece of some appropriate material, thus admitting, *between* the upper and lower sash, sufficient external air, if necessary, at a point where no draught will be produced.

FOOD

Is, also, a very important question. I am thoroughly convinced that a very large amount of the sickness among the children of a certain class is due to the want of proper food in sufficient quantities. This class includes those individuals who accumulate property by economizing at the dining table and in the family ward—

robe, notwithstanding the expense attending the sickness thus occasioned. The great variety of the chemical constituents of the human body can not be supplied alone by the daily soup, bone, bread and potatoes, which may answer well enough for fifty or sixty meals, but will hardly do for a steady diet the year round, without resulting in a decided decrease of some of said constituents, and in the consequent failure of health. "Man can not live by bread alone," in a physical as well as in a spiritual sense. The diet of the human family should comprise every wholesome variety of food. Oranges, lemons, oysters, quail, and similar articles, generally considered luxuries, and never served until sickness or Christmas comes, should be supplied with a liberal hand whenever, in their season, the body, through the appetite, expresses a deficiency in it of the elements those articles of food contain.

When a man's system is deficient in albumen, his appetite craves eggs, and he should purchase them, even at a dollar a dozen. When his system cries out for citric acid, his appetite craves oranges and lemons, and he should buy them at any cost. The proper remedy in the treatment of a disease is often suggested by the appetite of the patient. I once treated an old lady for a kidney affection who passed, daily, large quantities of albumen with her urine. She constantly craved buttermilk, but, contrary to my instructions, her friends were afraid to let her drink it. Finally I insisted on her having it as a medicine, thinking that, inasmuch as it was rich in albumen and other elements desirable, it would at least supply a waste. The result was most happy. My patient, over seventy years of age, is still living and in the enjoyment of good health.

A family, then, should economize in every other direction rather than at the dining table, and the art of cooking should be made a study. I do not wish to be understood as countenancing gluttony; far from it. I do not believe a person should sit down to the table who is not hungry, or, in other words, I believe that he should eat only in proportion to his hunger or relish. There is a happy medium in all things. Eatables, however, should constantly be convenient or within reach. A bite or two would often take the place of a glass of beer or whisky, and be of far greater benefit. I would suggest, also, that all cooks in public restaurants and hotels be required to undergo a critical physical examination before they are permitted to cater to the appetites of the people. Some of the worst cases of syphilis I have ever seen and treated were among cooks and bakers. The reflection that we are eating food touched, perhaps, by fingers that have been but recently in contact with a syphilitic chancre or its products, is certainly not very appetizing or pleasant.

SLEEP,

Sufficient in amount or to the satisfaction of the sleeper, if not abnormal in character, is another important matter. I have no sympathy with the doctrine that teaches early rising. The sun is a wonderful purifying agent and should be well up before we leave our habitations for the cares of the day. If there was more brain rest in the world there would be less suicide, insanity and disease of the nervous system; less dyspepsia and less intemperance. The intensity of the desire of men to accumulate, in about ten years, enough wealth to enable them to spend the remainder of their days in ease, luxury and fashion, is playing sad havoc with the mental fabric of this nation. "Give me neither poverty nor riches" is the moral sentiment which alone supplies the remedy. "He that maketh haste to be rich falleth into a snare," is as true as any other gospel utterance.

IN THE CONSTRUCTION OF HABITATIONS,

Sufficient attention has not been given to the simplest sanitary requirements. Sites for dwelling purposes should be dry and not malarious, securing to the dwellers light and cheerfulness. Perfect dryness of the foundations, walls and roofs should be one of the very first considerations. The washing of clothes should never be carried on in the basement or cellar of any house, public or private. A house should, entirely detached from the main dwelling, be erected for the especial purpose of washing clothes, and another one still, with a cellar underneath, for the storing away of the winter's provisions, which should ever and anon be culled.

A SYSTEM OF IMMEDIATE AND PERFECT SEWAGE REMOVAL

Is, also, of the very first importance. It is evidently upon the principle of drainage that the human body was constructed, for it comprises millions of sewers; hence, the individual or the community that imitates nature as far as possible can not materially err. The absence of good drainage is the cause of a class of diseases known as zymotic, which comprises all the principle diseases that have prevailed as epidemics, or all those which are due to specific disease poisons capable of propagation from one human being to another, and communicable either by direct contact or indirectly through various channels of human intercourse, contaminated water infecting the air, or by animals in a state of disease, as well as dietetic and parasitic diseases.

Fevers, gangrene, ophthalmia and many other ailments are certain to break out and become malignant if the emanations from such filth exist in the air around human habitations.

SYPHILIS.

I have said that we all have a vital interest, selfish though it may be, in the health of our neighbors, in the society in which we move, in public health. The parent who gives a son, or, more especially, a daughter in marriage, may not be absolutely certain that there lurketh not in the blood of the bridegroom that subtle poison, contracted in the violation of the seventh commandment, which will be inevitably communicated to her and her offspring.

How true, as I know, and as every physician knows, and how sad the thought that some of the purest, sweetest, most devoted and most intelligent Christian women of our times are suffering ignorantly from the effects of pox or syphilis, either immediate or remote. The physician could, if he would dare, a tale unfold that would startle and shake society as by an earthquake. It is no wonder that he becomes disgusted with the hypocrisy and deceit of the world, of men who are Christians in name only, and has brought down upon him the stigma of being a skeptic or infidel.

The period has certainly arrived when State Boards of Health and the secular press should awake from their lethargy upon this mammoth aspect of this subject and view it squarely in the face, and there should be heard for the next quarter of a century, from every pulpit in Christendom, sermons from such texts as "Her feet go down to death; her steps take hold on hell." "For she has cast down many wounded; yea, many strong men have been slain by her."

If the Indiana State Board of Health will take the lead in introducing to the public this phase of the great question in which it is or should be interested, and which has hitherto been discussed only in medical literature and private professional circles, it will confer upon that public a benefit coextensive with the human race itself, and will receive the lasting gratitude of the world.

According to a late estimate five millions of the people of the United States alone are infected with syphilitic virus. *Great God!!! Think of it, ye people of America, think of it!!!* Is it any wonder that such an immense mass of filthy leaven should, in a short time, ferment the whole population? It is well known that, aside from the most common source of the accursed pox or syphilis, the disease may also be communicated in the act of kissing and smoking, by the contact of various articles handled by men and women afflicted with this terrible disease.

I wish to give no offense to public feeling in the consideration of this gigantic subject. Let it be remembered that I am dealing with a question that reflects as much upon myself and ancestry as upon that of any other member of society; that I am vitally interested in the moral and physical welfare of my own sons and daughters, and, as a necessary consequence, in the welfare likewise of the society in which they do or may move. My desire is to expose, in all its hideous proportions, the great skeleton which lurks in the closet of this nation, that her sons and daughters may take warning thereby and seek to improve their physical condition, as the stock-grower endeavors to improve that of the lower animals. This endeavor, if honestly made, will tell emphatically on the future condition of the race, promoting the health and happiness of generations yet unborn.

Oh! that I could paint in vivid colors for the youth of this fair land of ours the long train of diseases and social evils which follow the inception of that accursed syphilis. The learned specialist may say to it: "*Out, damned spot,*" but it will not out. It may lose its original identity, remain latent in the system for years, and its victim flatter himself cured. But, alas! sooner or later the keen eye of the experienced medical observer recognizes its effects in the eye, the nose, the mouth, the ear, the brain, the scalp, the throat, the tonsils, the teeth, the heart, the lungs, the liver, the spleen, the kidneys, the spinal cord, the veins, the arteries, the larynx, the skin, the tongue, the gums, the bones, the muscles, the nerves, the glands; in short, every structure of the body supplied by syphilitic blood, and every atom is thus supplied, may bear the impress of this infernal disease, which, when once constitutionally contracted, follows a man, accelerating his progress to his final abode in the silent city of the dead.

How important then is PREVENTION. State Boards of Health will inspect critically the passengers of every car or ship for the detection of small-pox, cholera, or diphtheria; they will see to it that no quack shall practice his deception within the limits of their jurisdiction; they will make much ado about an obnoxious sewer, stinking vat, or cesspit; they will with great *eclat* order the cleaning up of alleys, streets, towns, and cities, and yet leave untouched, unharmed, and unnoticed the houses of prostitution in which our sons become saturated with a poison foul as hell—a poison compared with which the venom of the deadliest snake sinks into insignificance: that if it does not immediately kill, it is soon eliminated entirely from the system, while the former will constitute the origin of nearly all the diseases in the long category of human ills.

HEALTH OF THE EARLY SETTLERS.

BY M. M. LATTI, M. D.

E. S. ELDER, M. D.,

Secretary of the State Board of Health:

DEAR SIR—In attempting, at your request, to give an account of the influences that affected the health of the early settlers in this State, I have confined myself to that part of it lying north of the Wabash, as my personal acquaintance extended no farther.

A few people had found their way to some of the Indian trading places as early as 1825, but settlement was slow up to 1830, when the tide set strongly in this direction and so continued until 1850. I shall therefore confine my sketch mainly to this period, incidents of which might easily be collected to fill volumes.

The early settlers were mostly young, healthy and enterprising, or they would not have chosen the life of pioneers. Almost always poor in worldly goods, they were exposed to all kinds of weather without adequate protection, and in fact had no other idea than that they must be wet in wet weather and cold in cold weather. Of the conditions unfavorable to health that were encountered, some, like food and drink and sleeping apartments, affected all alike, while some affected men mostly, and still others mostly women. With regard to food, it is safe to say that not one person in a hundred had a plentiful supply, and what they did have was wanting either in quality or variety, while the cooking was almost always bad, partly from the want of knowledge and partly from the lack of proper utensils that now grace the kitchen of the poorest people in the land. Next to the danger from the lack of good food came that from the loss of sleep. This resulted in part from poor beds, insufficient bed clothing, and partly from the fact that most houses consisted of a single room that had from necessity to do duty for all purposes, thus making privacy and quiet an impossibility. If to these we add the torment of millions of insects it will be easy to understand how even in health sleep could be curtailed.

The articles of diet most in use fifty years ago were corn-bread and pork, with addition of venison and other game. Most kinds of vegetables now known were raised at that date, but not so greatly esteemed as at the present time. Milk was plenty enough, but butter was always scarce and seldom graced the table of the early settler. Wild honey, maple sugar and maple molasses, preserves made of wild plums and crabapples, and sauce of wild gooseberries helped to make up the bill-of-fare. For drinks there were sage, sassafras and sagebrush teas. Coffee was reserved for Sunday morning or some other special occasion. Flour was poorly made and often unfit to eat. Fish were plenty, but never became a popular article of diet. Salt fish were unknown. The pioneers were in one respect much like their neighbors, the Indians, who took little heed for the future as far as food was concerned. When they had plenty they used it without stint, and when everything was gone they waited as best they could for some change of season or some

thing else to renew their supplies. As might be expected from their mode of life, both men and women were affected with diseases of the digestive system, and the papers of that day were filled with advertisements of anti-dyspeptic remedies.

The influence of malarious poisoning on the health and prosperity of the early settlers can not even be imagined. We only know that while it caused sickness with symptoms differing from all others, it also modified all other forms of disease. While no estimate can possibly be made in such a case, I believe it is safe to say that if no such poison had ever existed the State would be at least twenty-five years in advance of what it now is, both in population and wealth.

This annually recurring sickness led to anxious, and often angry, discussion as to the probable cause. In some instances it was attributed to the progress of public works; to the building of dams, which thus formed artificial bodies of water, used for milling purposes or to feed the new canals. In fact so strong was the opposition to these improvements, on account of their supposed bad influences, that many of them were destroyed by force, while the power of the State had to be invoked for the preservation of others. An effort to destroy the dam of a feeder of the Whitewater Canal led to the appointment of a Commission by Governor Whitcomb to investigate the whole subject. These gentlemen visited all of the large reservoirs in the country, took the testimony of the inhabitants in their neighborhood, and used all other means within their power to solve the problem. After proper consideration they concluded that these supposed harbingers of disease were in reality conducive to health. With this verdict the whole matter was dropped, and is now almost forgotten.

For the first ten years the diseases were of an acute character. In the winter of 1834-5 there prevailed what was undoubtedly a typhoid-pneumonia. All cases treated by depletion died, while nearly all cases that were properly supported recovered.

That the epidemic was severe is proved by the fact that most of the unfortunates were made still more so by the loss of their hair. During the following autumn there were numerous cases of slow fever, with symptoms never seen before, and from that time onward this form of sickness returned annually, but the cases were not numerous and the mortality was considerably lessened. The year 1838 has ever since been called the sickly season. The early part of the summer had been very wet and very hot. The last rain fell on the 10th of July, and no more until the 10th of October. During all this time the sky was cloudless and the heat was intense, which produced a great deal of malarial sickness with but slight mortality. It was thought that fully ninety per cent. of the people were sick during that season. By this siege of sickness the summer's work was lost and the reputation of the State badly damaged, and immigration checked for a long time.

In the spring of 1844 began an epidemic of erysipelas, that extended from Maine to Texas. It lasted, without interruption, but with varying intensity, into the summer of 1852, and carried death and destruction into more families than any other disease of which we have any account in the medical history of the country. The disease appeared most frequently about the head and face, but it attacked without mercy every portion of the human body, and such was the destruction of tissue that when death did not follow incurable lameness often did.

But the worst remains to be told. Coincident with this outbreak appeared a form of puerperal fever, so violent and so fatal that pregnant women often looked upon themselves as certain victims of this terrible disease. No mention has been made of the various eruptive diseases, because, although they came and went, they exercised no special influence. While it was admitted that the State was sickly, it

was also agreed that some portions of it suffered more than others, and in hopes of being able to find out and remove the cause, an effort was made to pass a registration law, much like the one we now have. This attempt was made about 1850. The bill was in charge of the late Dr. Athol, then a member of the Legislature, and, though advocated by him, it was defeated, and it took nearly thirty years to bring public opinion to the support of a law the sole object of which was to promote the public good.

The diseases peculiar to men were such as might have been expected from their mode of life. The work of clearing land, house and barn raising, log rolling and road making; the journeys to mill or to market, the sleeping in or under the wagon in all weathers, the eating of such plain and often poor food as they were able to carry with them, all had a tendency to exhaust their physical strength and to make them liable to attacks of pleurisy, pneumonia, rheumatism and dysentery. Even hunting, now regarded as pastime, was hard work for the early settlers, for while game was plenty, it was not had for the asking, and those who had but little of the leather-stocking in their composition often found it difficult to supply their actual wants. The hunting of fur-bearing animals was generally at night, entailing loss of sleep and increased risk from various kinds of accidents. Indeed, accidents were frequent, both by day and night, and were largely due to the free use of liquor, a custom at that day common in both public and private life.

The women of that time suffered from overwork, from lack of nourishing food, from excessive child bearing, from prolonged nursing of their children, and from a kind of scurvy that destroyed their teeth. It is no wonder that with all these things to contend against many of them lost both health and good looks. Child-bed fever was common in those days, and the only wonder is that it did not occur more frequently, for women were expected to remain, and usually did, in the same clothes in which they were confined, for nine days. The modern apostles of irrigation and cleanliness may think such a statement incredible, but its truth is beyond a doubt. Milk-leg was not an uncommon attendant on this fever, and permanent lameness sometimes followed.

Probably no one thing had such an unhappy effect on both the bodies and minds of women as the character of the religious teaching. Isolated, as they often were, for weeks and even months, they gave themselves up to religious thoughts, trying to interpret the teaching of those early preachers, whose zeal was not, unfortunately, always according to knowledge, and it is not surprising that they sometimes became so absorbed in the future that they lost all interest in mere worldly matters. Great mental distress, followed in some instances by insanity, was the result. In fact, nearly all the early cases of insanity originated from this cause, and nearly all the patients were women. There was still another form of disease from which some women suffered greatly, and for which there seemed to be no remedy, and that was homesickness, and there can be no doubt that some of the more sensitive new comers found the monotony of their new life beyond endurance, and at last faded away and died, the victims of this singular and often unsuspected disorder. But with most women the case was different. Accustomed from childhood to endure all kinds of hardship, they accepted what their new experience brought them without a murmur, and often proved more resolute and patient than the men. Smoking was a common and injurious, though not a universal, practice, and was excused, or advocated, as a means of relief from toothache—one of the troubles of every pioneer woman—and for painful digestion. Smoking, in these cases, was practiced by women for the same reason that most men drank whisky, i. e., to relieve the unpleasant sensations produced by bad food and bad cooking.

Children suffered mostly from worms, and to an extent that at this day seems incredible. The stories told about hundreds being expelled at a time were literally true. The mothers of that period fully believed them to be the cause of nearly all children's diseases, and there are some now who still believe this to be true, while, in point of fact, the worms have been gone for a quarter of a century. Attacks of croup were quite frequent. Bowel complaints were common in the summer, but not very fatal.

Brief as this sketch has to be, it may still be of some value as a standard of comparison. For the last thirty years there has been steady progress in everything that is calculated to improve the public health, and the result is the disappearance, one after another, of all the worst forms of diseases. Such epidemics as we have had in that period have been milder in form, and the last one we had worth mentioning occurred in the summer and fall of 1865, nearly twenty years ago.

HYGIENE OF FARMERS' HOMES.

BY JAMES F. HIBBERD, M. D.

According to the last United States census there were, in 1880, in Indiana, 194,013 farms, and presumably not less than an equal number of farmers' homes, occupied by 329,614 male farmers, and 1,626 female farmers, making a total of 331,240 persons engaged in agriculture. This total should probably be doubled to cover the whole number of people who reside in farm houses, bringing the aggregate to about one-third of the entire population of the State, who are directly affected by the hygiene of farmers' homes, and those who are indirectly affected certainly constitute another third. Thus we have, say 1,300,000 of the people of Indiana concerned, that the hygiene of the farmer's home shall be as good as knowledge and circumstances will permit, making the subject of sufficient magnitude to enlist our highest consideration.

Hygiene means the preservation of health, and accordingly "The Hygiene of Farmer's Homes" signifies the maintaining of their homes in such condition as to secure the highest possible sanitary estate of their occupants.

Defining the word home to mean the house and its surroundings, the first point is that the house should have dry ground to rest upon. That stagnant water is inimical to health, is a proposition accepted as true by the people at large, and its correctness has been repeatedly demonstrated by sanitarians of all enlightened countries. When the soil is saturated to the surface, or near it, with water, during a considerable portion of the year, it has all the evil effects of stagnant water on the surface, and some of these effects intensified. Such soil gives origin to special forms of vegetation which falls, after maturity, to the ground, and under the influence of the sun of the same or the ensuing season, breeds malaria. Beside the vegetation, other organized refuse matter, both vegetable and animal, accumulates about an occupied house on the ground, or in it, and the wet soil and high temperature are the other efficient factors to create emanations that induce ill health, it may be of certain definite forms of fever, as intermittent or remittent, diarrhea, dysentery, consumption, and various inflammations, or, what is equally imminent, so reduce the natural constitutional stamina of persons subject to its influence, as to make them victims to typhoid fever, scarlet fever, diphtheria, or other specific disease, the contagion of which, but for this reducing agent, they would be able

successfully to resist. Ground, therefore, which is not naturally dry and can not be made so by drainage, is wholly unfit for the location of a human habitation.

And, furthermore, beside the general dryness of the soil where the homestead is situated, there should be a special surface drainage away from the house for a moderate distance at least, so that the direct rainfall and the water that may come from the roof, and slopes, or accidental fluids that may reach the surface in proximity to the house, from whatever source, shall have immediate flow away from the dwelling, with a minimum moisture retained in the soil touching the foundations of the building, and none left in pools or depressions for evaporation within influential distance of the residence. This is of such importance that if the ground around the house does not have the necessary inclination naturally, it should be made so by filling up with sound earth.

Having secured a healthy site, what is the requisite arrangement of the house itself? In all cases, if a new building is to be created, the prime controlling thought should be to plan and construct it so as to be best adapted to the purpose it is intended to serve, and holding fast to this idea throughout all details, the size, style and ornamentation may be adjusted to suit the taste, ambition and purse of the owner. A court house should not be planned like a church, nor a church like a school house, nor a school house like a dwelling; and the laboring farmer, whose family will do the housekeeping work among themselves, wants a house of a different pattern from that of the capitalist who constructs a country seat where servants will be employed to do the housekeeping work.

Purifying air and vivifying sunlight are essential to human health, and they are most abundant outside of all buildings; but it often happens that there is an excess of one or both on the open plain, and, besides these, there are rain and snow and cold in this latitude, from which the people need to be shielded. The first proposition, therefore, about a hygienic house, is that it shall admit plenty of air, light and moisture and exclude all excess of each, and at the same time have the means of maintaining the proper temperature in winter. These essentials secured, the next step is to have the premises so arranged that the housekeeping labor can be thoroughly done with the least demand on the mental and physical energy of the laborers.

A farmer's house has necessarily three departments, viz.: for work, for day living and for sleeping. The first department must have apartments for kitchen pantry, dining room, wash house, and dairy; the second must have the family rooms, and the third the bedchambers. Usually, each of these departments occupies several rooms, the number depending on the means or taste of the owner. Not infrequently, however, poverty or other necessity brings down the number of rooms, and sometimes the entire house consists of a single apartment, and, even then, instinct or intelligence frequently maintains fair hygienic conditions.

For illustration, we will suppose the farm house to consist of eight rooms, kitchen, dining room, family room and parlor on the ground floor, and four bed rooms in the second story, with a cellar under the whole house. For the sake of sunshine the house should front east, southeast or south. In our sample house, the main front shall be southeast, with a secondary front southwest. The kitchen should be in the north corner, the dining room in the west corner, the family room in the south corner and the parlor in the east corner. This distribution of service to the rooms designated is to utilize the sunshine. The kitchen will have only a little of it, but the heat of the cooking apparatus, the frequent opening of doors and the active movements of the working inmates keep up a constant change of air and such thorough ventilation that the absence of sunshine is not a great evil.

And, on the other hand, the shady corner of the house for the morning work in the heated midsummer, is an element of hygiene of no narrow importance. The dining room will have the evening sun always, and the afternoon sun in winter, when sunshine is a hygienic luxury therein. The family living room will be open to the sun all day long, and as this is the room of rest and social enjoyment for the inmates it should have preëminence in hygienic qualities, and, all other things being equal, the room in Indiana that has most sunshine in winter is the healthiest. In southern Europe, hotels invite winter guests by advertising far and wide that their apartments have a southern exposure. It is not forgotten that the sun shines in summer, when the temperature is too high, as well as in winter when it is not high enough, but it is also remembered that in midsummer at midday the sun is so near vertical that it does not shine into the house at all, and, moreover, such is the temperature at that time that windows and doors may be thrown open for air as comfort demands, and thus mollify the ardor of the midsummer sun. The parlor will have a fair amount of sunshine, but as it is chiefly for company and for occasional, not constant, use, its hygienic attributes are not nearly so important as are those of the other rooms that have been discussed.

Supposing that three bedchambers be required for family accommodation, the one over the family room should be occupied by the parents, that over the parlor by the younger children, and that over the dining room by the other members of the family, leaving the room over the kitchen for the spare chamber that a visitor may sleep in occasionally.

It will be observed that the foregoing recommendations appropriate the best rooms for family occupation, leaving for visitors the parlor by day and the spare, unsummed chamber by night. These are the least desirable apartments in our specimen house, and it is straight in the face of common custom not to reserve the choice rooms in the house for visitors, and pack the family in the least desirable. But the time has fully arrived when farmers—and all other housekeepers, for that matter—should conclude, and be guided by the conclusion, that the members of the family who occupy the house all the year should, day and night, be domiciled in the parts of the house promising the highest hygienic advantages, and bestow on the visitors, who occupy them but one day and night in the year, such accommodations as are left.

Having provided for sunshine, let us consider ventilation. Good air is as much a factor of good health as direct sunshine. The atmosphere surrounds the earth, extends many miles above its surface, and down below its surface as far as human exertions in mining or otherwise have permitted of observation. It fills all terrestrial space not occupied by something else. The soil is saturated with it. A so-called vacant house is full of air. No skill can construct a building that would exclude the air, and if a house could be made air-tight and by some means its interior be exhausted of air, no ordinary structure could stand for a moment under the pressure of the external air, which is fifteen pounds per square inch, which, for a house thirty feet square and twenty feet high, would exert an aggregate pressure on all sides of 324,000 pounds. Air is always in motion. Even in the calmest moments of external air there are constant currents, and winds, tornadoes and cyclones or hurricanes are all atmospheric air in motion. The weight or pressure of air in a state of ordinary rest is 2,140 pounds per square foot, and the pressure of wind, with a velocity of ten miles an hour, equals half a pound per square foot additional in the direction of the motion; of twenty miles an hour, two pounds; of fifty miles an hour, twelve and a half pounds; and of one hundred miles an hour, fifty pounds per square foot. This last velocity is that of a hurricane, and fifty

pounds per square foot would aggregate a pressure of 30,000 pounds against the exposed side of a house thirty by twenty feet. A strong structure is demanded to resist this force, and such a *blow* would strike a man six feet high and one foot broad with a force of three hundred pounds—quite enough to take him off of his feet and send him whirling through the tempestuous air.

We shall presently see that these violent perturbations of the supra terrestrial air are nature's efficient measures to first distribute and equalize its impurities, then cause their destruction, and maintain it fit for the support of human and other animal life.

This same air penetrates the soil, and therein is constantly undergoing change; not the furious motion just mentioned, but a quiet interchange between that which is in and that which is supernatant, and as the air leaves the soil it carries whatever it has met with that it is capable of bearing. If the soil is wet and impregnated with the material to engender malaria, this is carried with the air current in whatever direction it may take, possibly straight up into regions where no harm may come to man, possibly away from the habitation, but unfortunately it may be directly into the dwelling. The germs of many diseases are borne in the air, and the genus of some diseases become active in the soil, and thence are carried to human victims. But unwholesome gases are also the product of damp earth, and if these or the germs are generated in soil in proximity to the cellar walls, they, with the air, find their readiest line of travel into the cellar, and thence throughout the house. This warns us that not only should the soil around the house be kept dry and free from the elements of disease, but the cellar should be so constructed that these elements, should they find lodgment there, shall not escape thence into the house proper. To this end the cellar should be, at all times, well ventilated, and the ceiling plastered so carefully as to be impervious, and the stairway leading from the cellar should not open into any room in the house, but outside.

Summer ventilation of a cellar is easily effected through properly arranged windows, but for winter ventilation there should be a special flue starting from the cellar floor, and carried up through the kitchen chimney or other chimney that has daily fire in it. It is safe to affirm that damp, unventilated cellars, with no provision to prevent their unhealthy emanations from rising into the living rooms over them, are the parents of more weakly constitutions in the people who inhabit these rooms than any sanitarian has yet been able to measure, and they are not infrequently the cause of definite and dangerous diseases. Add to the damp and confined air the deleterious products of decaying vegetables, and the fermentation of other organic substances so often stored in farmers' cellars, and we have a source of disease that would, if it could not be prevented, justify the oft repeated declaration that farm houses should have no cellars, but caves instead, entirely separated from the dwelling. Nevertheless, in suitable soil, with proper construction and intelligent care, a farmer's cellar may not only be free from evil, but as desirable an apartment as belongs to his domicile.

For ventilation of the living rooms we must not forget that two systems are requisite, one to change the hot air of summer and keep the rooms cool, and another to change the cold air of winter and keep the rooms warm. As warm air in a house is always uppermost and cold air below, the summer ventilation should be from the top, and the winter ventilation from the bottom of the room. This is not difficult where the principle is understood. An open fire is the simplest ventilation for winter, and is as effectual as need be, and in summer, lowering the upper sash of a window is equally simple and effectual. But when these methods are impracticable, a separate flue in a chimney that is used, with a register near the ceiling

and another at the floor, will answer the purpose. A dwelling house should not be built without a fireplace, or its equivalent, in each room, that being the one sure means of ample ventilation, while being utilized for warming service.

The foregoing suggestions have reference to the outlet of bad air, but the inlet of good air must be as carefully looked after. Open windows and doors during some part of the day or night in summer, usually afford abundant inlet as well as outlet, and in winter, where the fireplace is used for warming a room, the large draft is supplied by the inlet through the crevices about the windows and doors, and in many cases through the house walls themselves, for it is fully demonstrated that brick walls permit the passage of air through both brick and mortar, and wooden walls admit a little through the wood, but more through imperfect joints where the weatherboards are fitted and lapped. It is true that where brick walls are painted outside and plastered walls are papered inside, it arrests, or greatly lessens the inflow, and in such cases greater provision must be made for an additional supply.

Where stoves are used for heating, the draft is not sufficient to ventilate the room ordinarily, and special arrangements must be provided for the adequate change of air. And in bedchambers there is even more attention demanded to secure fresh air than in rooms occupied through the day only, because in the day rooms the inmates move about, stirring the air into minor motion, and the doors are frequently opened into other apartments or into the outside air; but in bedrooms, after the sleepers have retired, the room is quiet for hours, and until they rise the doors and windows remain as they were left at retiring, and these conditions demand, for health's sake, that means of ventilation be carefully provided.

All these preparations look to a constant change of air in the house. What for? This: All men must breathe oxygen to live, as must all other animals. Of every one hundred bushels of pure atmospheric air seventy-nine bushels are nitrogen and twenty-one bushels oxygen. We breathe the air for the sake of the oxygen, the nitrogen playing the role of a neutral vehicle to dilute and carry the oxygen. And while it is the oxygen we must have, there may be other ingredients we inhale with the air—some neutral, some disturbing and some poisonous. Near the surface of the earth there is no such thing as strictly pure air. It is corrupted with many gaseous emanations from water, from soil, from the deeper earth, from dead, sick and healthy animals, and from dead, sick and healthy vegetables. The ordinary vapor from water is not detrimental to health, and some of the other emanations are not seriously mischievous, but several of them are, and so far as the farmer's house is concerned, these may be accounted as successfully neutralized when the carbonic acid gas is managed into harmlessness. Carbonic acid gas is produced by combustion and decomposition, and by the vital processes in all animals, being largely exhaled from the lungs of man and the beasts, birds and reptiles about him. Carbonic acid, as it exists in nature, is an invisible gas like the atmosphere, and although heavier than air it is by the law of the diffusion of gases usually completely and evenly mixed with the air. Common outdoor air contains about one bushel of carbonic acid in every 3,333 bushels of the atmosphere, and in this quantity is not recognized by our senses and does no harm, but should it increase to one bushel in one thousand bushels of air it then has reached the limit of human endurance; any further increase causes death less or more rapidly according to the amount of increase. Long before the carbonic acid reaches the proportion of one in a thousand of atmosphere one's sense of smell recognizes something wrong, and one begins to feel listless, stupid and heavy and have headache, and as the quantity of the acid augments, the oppression grows greater, until soon after passing the

proportion of one to one thousand a human dies of suffocation. Now it is to keep the proportion of carbonic acid to atmosphere as near as possible as one to 3,333 in farmers' houses that a constant change of air is demanded. The increase of carbonic acid in houses arises chiefly from the inmates, but burning candles, lamps and other illuminants adds something whenever used. When a person breathes, his blood absorbs oxygen from the inspired air in the lungs and gives out carbonic acid in its stead. In this way an average man makes and exhales about fifteen bushels of carbonic acid every twenty-four hours. A room fifteen feet square and ten feet high holds about 1,800 bushels of air, and this, if natural, has a little over half a bushel of carbonic acid, and a man confined in it will, in two hours, add to it about one bushel and a third of the acid, which brings the quantity near the limit of human endurance, and in three hours would carry it beyond and produce death. That this disaster does not happen every day, or rather every night, is owing to the fact already stated that the bricks, and stone, and wood, and mortar of which the walls of houses are constructed admit of the transmission of the air slowly through them, and the unavoidable chinks and crevices about doors and windows admit still more and faster of the good air inward and the bad air outward. But in a brick house painted outside and papered within there must be special means of ventilation, or the air of inhabited rooms, and particularly bedrooms, will become serious obstacles to health. It is the perfection of the builder's work and the elegance of the ornate finish of the rich man's mansion that so often makes it less healthy than the poor man's hovel for their respective inmates, the relative uncleanness of the poor man's hovel being more than compensated for by the free passage of the breezes through his rickety shanty. Let anyone go from the fresh morning outdoor air into an occupied bedroom, and if he finds it close, stifling and offensive it is proof positive that the ventilation is imperfect, and that the carbonic acid and other emanations from the sleeping occupants have been retained to a dangerous degree, and the evidence of his own senses in such an instance is a better criterion to go by than the keenest analysis of the brightest chemist. In all such cases the interchange of outside and inside air through the walls, and cracks, and crevices has not been sufficient, and if better arrangements are not made the inmates will fall into ill health and most likely into some definite disease, possibly consumption.

The sole purpose, therefore, of ventilation is to keep the air as pure inside the house as it is outside, and this is done by inducing such a circulation of it between the inside and outside as will equalize the unhygienic constituents of the two parcels, for, practically, as soon as the air is outside, however it may have been charged with human effluvia or other impurities, it is quickly so diluted as to become harmless, the immense amount of carbonic acid produced by all the inhabitants of the earth and all the fires, being as nothing compared with the whole volume of the atmosphere, and between the diffusion of gases and the ceaseless and rapid changes wrought by currents of air, ranging from zephyrs to hurricanes, the carbonic acid is so uniformly diffused as to be harmless. That carbonic acid has not accumulated in the atmosphere in the ages that are past is due to the fact of its appropriation as food by the vegetable world. And this is the perpetual round. Vegetation finds carbonic acid in the air, absorbs it, and converts the carbon into vegetable tissues, setting the oxygen free. Animals consume the vegetable tissues as food, and in the ultimate processes of assimilation the carbon is freed, and, uniting with the oxygen absorbed from the air and otherwise obtained, it constitutes the carbonic acid which is exhaled in breathing, and is again ready to start on another similar round. It is this perpetual mutual interchange of products between the animal and vegetable kingdoms that maintains the life of each.

There is still another point to consider about the hygiene of the farmer's home, and that is the proper arrangement of its surroundings. Farmers must have privies and hogpens, and stockyards, and barns, and each of these is a source of impurity that may contaminate the air. In selecting sites for these the direction of the currents of air must be considered so that the prevailing winds shall pass from the dwelling to these points, and not from these points to the dwelling. The great majority of winds in Indiana come from west of a north and south line, and accordingly all these outbuildings should be located east of the meridian passing through the residence. And the surface drainage, and, so far as possible, the subsoil drainage, from each of these outbuildings should be away from the dwelling. Thus located at a suitable distance from the dwelling, and kept in good order, neither of the outbuildings will offend against hygienic regulations. Especial care should be taken that the well, or source of water for household purposes shall be safe from all but deep underground supply. If a grove of trees, natural or cultivated, can be maintained in good condition a few hundred feet to the west and north of the dwelling it will be of good report for health—in winter by interrupting the currents of cold air, in summer by purifying the atmosphere of mischievous gases, and at all times affording a grateful landscape to the vision. Trees, not too compactly set, and kept trimmed to forbid damp soil beneath them, may be closer to the house and on all sides of it, but they must not be so close as to interfere with the circulation of the air around and through the house nor to cut off the sunshine from its walls and windows. A shaded house is decidedly acceptable in a hot summer day, but shade can be had in the house at all times, while overhanging trees make damp walls and, consequently, damp and musty rooms, and all that this implies. Grass and flowers and plants and shrubs may be healthfully cultivated near the house, but shade trees should be far enough away to admit of well aired and thoroughly dried walls.

To sum up the essentials of the hygiene of a farmer's house, they are found to consist of:

First. A dry soil location for the house, including thorough surface drainage, and a dry, securely ceiled cellar.

Second. The house facing toward the winter sun with windows arranged to admit his slanting rays into all living rooms whether for day or night service.

Third. Ample provision for such rapid and continuous change of air in all rooms as will insure the prompt dilution of carbonic acid and other human exhalations below the point of health destroying agents.

Fourth. All outbuildings to be placed to the east of the meridian running through the dwelling, in order that the chief currents of air may not bear unhealthy effluvia into the dwelling.

Fifth. Shade trees, not too many, and trimmed to admit air and light under them, on all sides of the house, but not so close as to prevent the sun and air from promptly drying the walls after wet weather.

Sixth. Greensward immediately around the dwelling, with a suitably arranged supply of plant, flower and shrub adornments.

Seventh. The well or other supply of water for domestic uses must be sacredly protected from all surface drainage or other sources of contamination—where circumstances permit of a driven well it is undoubtedly the most secure against surface evils.

Perhaps the reader is ready to say these essentials may be easily provided where the farmer is making a new home, and then to ask what is to be done with the 200,000 farmers' homes already established in Indiana, many of which, undoubt-

edly, do not conform to the prescribed regulations? The writer admits the pertinency of the question, and acknowledges the difficulty of solving satisfactorily the problem it presents. Still, we must not fail to do what good we can because we can not accomplish all that is desirable. Precisely the same principles should guide us in improving an old home, that would govern us in creating a new one. If the soil is wet, underdrain it with tiling; if the surface drainage is toward the house, fill up around the house and remove the higher ground wherever it exists as a hindrance to the outflow; if the cellar is dark and damp, put in windows on opposite sides for light and air, and have it closely ceiled; if the rooms have no fireplace, only holes into chimneys for stovepipes, near the ceiling, windows, with upper sash fastened in tight, and the lower sash without springs or other appliances to hold it partly raised, knock out the fastenings under the upper sash and put springs or catches in both sashes so they can be lowered and raised at pleasure for warm weather ventilation, and for purifying the room in cold weather arrange a special flue, starting from near the floor and entering the chimney with the stovepipe; and if the external air be not sufficiently admitted, take a strip of board four inches wide and as long as the window is wide, and raising the lower sash, place the strip under it and clo e the sash down tight on the strip. This will separate the sashes at their junction the width of the strip of board, and will admit air without making unpleasant currents; if the outbuildings are on the west side of the dwelling, remove the privy, hog-pen and chicken-house to the other side and keep the barn and its yard clean, and see that all drainage is directed away from the dwelling; if the yard is crowded with trees, shading the house and preventing the growth of green sward, cut down those nearest the house, trim up the others and cultivate blue grass in all parts; if the geese, or ducks, or chickens, or saucy pigs have been visitors to the well for a drink, or to the back door for stray crumbs, fence them out and see that water and the stray crumbs are furnished them so far away that their bad habits will not create a nuisance at the well nor kitchen door.

In conclusion, it may be well to state that the hygiene of farmers' homes differs in no wise from the hygiene of other homes, except as they may differ in their situations and surroundings. Farmers' homes, from their isolated situation, ought to be freer from man's and beast's and earth's impurities than the city home, and more easily supplied with sunshine, good air and good water. The discharges from the bowels, the kidneys, the skin and the lungs of man and the domestic animals, even when all are healthy, become sources of disease when retained in quantity or where they undergo certain forms of putrefaction in confined situations, and when these excrementitious matters arise from diseased persons or animals they are often the vehicles of contagion, carrying disease, each of its own kind, generally, but sometimes exciting disorders of another character. Dilution with atmospheric air is nature's first great disinfectant. The foulest air in a ward of a small-pox hospital will no longer excite small-pox when sufficiently diluted with all the outside atmosphere, and the poison thus diluted soon loses its specific characteristics by a natural process of decomposition, which reduces it to its original harmless elements. But for this natural destruction of poisonous vapors and gases, the atmosphere, notwithstanding the vastness of its volume, would soon be burdened with all these deleterious agents, accumulated since the creation of living things, and would be so impure that man could not survive in it a moment. But the process of decomposition is always equal to the progress of production, and the atmosphere, as a whole, is as pure now as it ever was. The points of practical interest are, therefore, to first dilute all these emanations, and until they are diluted into innocence, keep them out of the way of human contact. As these noxious agents are pro-

duced in greatest abundance where numbers of people are aggregated most closely, it is quite obvious that the inhabitants of densely populated cities are much more exposed to the evil of them than those who dwell in the country, and it follows as a logical deduction that with equally intelligent supervision the farmer's home must be the highest hygienic home in the State.

RICHMOND, IND., Dec. 1, 1883.

SOME THOUGHTS ON EDUCATION.

BY BUDD V. SWERINGEN, M. D.

In a correct system of education the body has claims on our consideration not inferior to those of any other element of our nature. There are three theories with regard to the mind: One set of philosophers hold that what are called mental phenomena are the exclusive product of an immaterial principle within, having no connection whatever with organized structure. Another, that matter produces thought; that wherever an organism such as the brain exists sensation and thought exist; when the brain is sound and vigorous sensation and thought are strong and vigorous, and when the brain dies the mind dies also. The third and most generally received opinion is that mind is a principle superadded to organization, and that in our present state of existence it requires the intervention of some such organ as the brain through which to act.

The first position with regard to mental manifestations I think is untenable; the arguments that may be brought against it are many and irresistible. As to the other two theories, it matters not for our immediate purpose which we adopt. Whether we fully understand its nature or not, we know from personal experience that an intimate connection does exist between mind and body. An excessive emotion of fear or joy, as numerous facts show, may exert a deleterious influence on the body, and an abnormal condition of body may produce a corresponding effect on the mind, and from this arises the necessity for him who is engaged in any severe and protracted intellectual labor of paying due regard to his physical well-being.

From ignorance of this fact or from carelessness, I know not which, parents frequently commit a fatal error on this very point. They have two boys—one a hearty, rugged individual, the other a puny, sickly little fellow. The former learns his lessons only by the severest application; the latter with comparative ease. He exhibits a remarkable precocity of intellect; in other words, he is unusually smart.

The robust youth, being uncommonly dull in intellectual pursuits, must, they think, be destined for manual labor, and hence, impressed with that conviction, he is sent to engage in some mechanical or agricultural employment. But the smart one, he is cut out for some nobler purpose. He must be a divine, a doctor or a lawyer. He is sent to school, and the teacher is directed to do all in his power to encourage this remarkable mental activity. The teacher acts in accordance with directions. In course of time he quits the common school, enters college, goes through with the regular routine of studies, receives his diploma with honor, and then commences the study of his profession.

Days and even nights are spent in ceaseless mental toil, his physical welfare is disregarded, and about the time he has finished his professional studies, and the parents are elated with the prospect of soon realizing the bright anticipations they entertained of their son's playing some conspicuous part in the intellectual drama of life, the bud of promise is nipped by a premature frost, and the parents pay the penalty of their folly by following their son to an untimely grave.

Should you walk through many of the cemeteries in our land and knock at the door of the sepulchres, where hundreds of noble youth lie slumbering in death, and should inquire, who are you and what brought you here? methinks there would come from the dark recesses of the tomb a hollow voice: "I, too, once enjoyed the pleasures of life, and bid fair to become a prominent and useful member of society, but my foolish parents, in their over-anxiety for my intellectual welfare, disregarded my physical culture, and I now rest beneath the sod, a victim to an over-wrought brain." This is not a fancy sketch. I could adduce examples from my own personal observation, and hundreds of others left on record in the annals of almost every collegiate institution, confirmatory of the truth of this assertion. I have in my mind now a young man of excellent promise, from Summit county, Ohio, a classmate of mine in Vermillion Institute. At the close of the term I bid him good-bye. He returned home, and shortly after entered Washington College, Pennsylvania. He graduated with honor, and then entered the theological seminary at Allegheny, and when he had nearly finished the course, and was expecting to return home in a few weeks, his parents suddenly received a telegram that Watson was dead, and there can be no reasonable doubt that his death was occasioned by too intense a devotion to intellectual pursuits.

It is altogether a mistaken idea that of two boys, the one rugged the other puny, that the latter should engage in mental labor, the other in manual. The weakly one needs physical exercise. His mind is out of all proportion to his body. Keep books away from him until, by exercise, he has brought his body up to an equilibrium with his mind, and then, if desirable, he may resume his studies, but he should be constantly watched, and should take vigorous exercise daily in the open air.

But should the rugged boy, because he is dull, abandon all hopes of ever attaining any intellectual eminence? By no means. He has a constitution which, by proper care, will endure the wear and tear of hard study much better than that of his invalid brother. No, let him not despair of success because he is inferior to his brother in facility of acquisition. Suppose he is a little dull, should that be an obstacle to exertion if he is ambitious for intellectual distinction? Some of our most eminent men were remarkably dull boys—no manifestation in their early boyhood indicative of that greatness which they afterward reached. Their eminence was not the result of genius, but the natural consequence of industry and application, combined with a proper regard for their physical nature.

Another error is that of sending the child to school too early in life. No sooner has he arrived at that period in his history when maternal nourishment becomes too weak for the growing demands of his stomach than he is furnished with a book and sent off to school. And there he must sit with his eyes on the book, and that, too, perhaps, in an ill ventilated room, surrounded by an atmosphere contaminated by the exhalations from fifty or a hundred different lungs, and should he yield to that imperative necessity written by the hand of God himself in his very constitution, and become a little restless, vary his position in any way and thereby make a little noise, he is immediately awed into submission by the angry frown and stern voice of him who, if he had any proper view of human nature, would send him

out into the open air, where he could go through with those gesticulations indicative of or peculiar to childhood without interfering with the regulations of school. The school room is not his place; his theater of action is hemmed in by no artificial walls; it is bounded only by the blue canopy above him and the earth beneath and around him. There is nothing gained by sending the child to school before he reaches the eighth, ninth or tenth year of his existence. During this period let him study persons and things. He may enlist his perceptive faculties in the investigation of the names and qualities of external objects; he may thus acquire an amount of knowledge, and that, too, at the expense of physical exercise, which will be of more real advantage to him than had he been confined in the close school room.

It is an important fact to remember, in the education of the young, that where this unusual smartness exists there is frequently a proclivity to strumous or scrofulous disease, mental activity in disproportion to the age of the child being one of the prominent symptoms of the scrofulous diathesis; and although there may be at the time no external manifestations of the disease, yet, if the mind be overwrought and the body neglected, visible indications of its presence will soon appear.

The habit which many close students have contracted (with a view to economize time) of sitting down and studying hard immediately after a full meal is most pernicious in its effects. It not infrequently leads to dyspepsia, and a few plain principles of physiology will show why it should have this effect. We all know that all the organs of the body are supplied with nerves from the brain, spinal cord and another system situated on both sides of the spinal column throughout almost its entire length, called the sympathetic. These nerves freely communicate with each other. Now, nerve power is sent down to the stomach immediately after a meal is taken to assist in the process of digestion. But if this nerve power is kept back, and consumed in the operation of thinking or study, it is readily seen that the function of the stomach will be impeded and indigestion be the result.

RESTRAINT OR NON-RESTRAINT IN THE TREATMENT OF THE INSANE.

BY DR. W. B. FLETCHER, SUPT. OF THE INDIANA HOSPITAL FOR THE INSANE.

This subject is now exciting commendable interest on the part of the public as well as considerable discussion on the part of those who have direct control of hospitals and asylums for the treatment and care of those who suffer from mental disease.

Prior to 1790 it was the custom to confine all insane persons in the so-called mad houses, where little was attempted in the way of treatment and less done to render the unfortunate one comfortable. It was cheaper to keep them tied to a post or chained to a ring in the floor than it was to have attendants watch them. Nothing was done for personal comfort. The unfortunate wretch of dethroned reason lived in filth and rags, confined by manacles upon the feet, wrists, waist or neck, their agonizing cries only silenced by the lash.

This was less than a hundred years ago. At that time Pinel, *Medecin en Chef de la Salpetriere*, established what is now called the system of non-restraint, which has spread slowly over Europe and finally to America.

What Robert Pinel practiced was soon taken up by Esquival and other distinguished French physicians. They did not do away with every form of restraint, but abolished all forms of bodily bondage that were painful or disgraceful in kind. But they did more than this: they remodeled the abodes of the insane, introducing methods of decent cleanliness; abundant comfortable clothing took the place of filthy rags, and a full, generous, varied diet the place of the scanty, half-cooked food formerly furnished.

It was not alone due to individual effort; it was the spirit of the age—the age of a reasoning reformation. “That spirit which burned witches—would tie to the stake and heap fagots about the unbeliever—would as readily punish with thongs, dungeons and starvation the helpless lunatic of its times. The spirit of reason of to-day, which recognizes and respects the rights of all religionists, likewise shields and protects from unjustifiable abridgement of their liberties the insane of its times.”

Why the abolishing of restraints has proceeded so slowly in the United States is difficult to comprehend. It has been suggested that in England it is easy to abolish restraints because “the climate is quieting; that of France exhilarating, Germany exasperating, and that of America cosmopolitan and changeable.” It is true that the English are slow-going; the French gay and passionate; the Germans phlegmatic, stubborn and irascible, while the Americans are all things combined, so far as temperaments and characteristics are concerned, drawing their natural tendencies from such varied ancestry. While we must acknowledge that some temperaments are more easily controlled than others, yet the same influences brought to bear control them. Manifest loving kindness, tenderness and sympathy affect all mankind, without regard to climate or race, just as do heat and cold, hunger and thirst. It is more likely that the tardiness with which restraints have been abolished from American hospitals and asylums is that a misguided economy on the part of those who provide for the keeping of the insane has so limited appropriations for their maintenance that it was not possible for the Medical Superintendent to give the patients that liberty which he knew they required for health and comfort.

In the United States insane hospitals are, almost without exception, dependent upon appropriations made by State Legislatures, and the party in power recognizing the fact that their success depends upon showing to the taxpayers an economical administration of the public institutions, they thoughtlessly compel a cheapening of labor in the hospitals, it being found that one attendant can take care of twenty insane persons if they are tied securely to the restraint chairs or locked in cribs, and the tendency is to save the expense of an extra attendant by such means. If a patient tears clothing or breaks windows, it is regarded economy to keep the patient in handcuffs (called “wristlets”) or camisoles (a “strait-jacket”) rather than to pay good wages to an intelligent, well-qualified attendant, that by kind and gentle ways could soon teach the patient self-control or divert the unusual excitement of the insane mind into more quiet channels.

When our legislative committees on benevolent institutions are chosen from honest philanthropists, who desire as far as possible the amelioration of those suffering from insanity rather than because of their most stringent views of economy, medical superintendents of insane hospitals will have better opportunity of carrying out the humane plan of non-restraint treatment.

Restraints used in hospitals for the insane are of two kinds—chemical and mechanical—the former including everything administered to quiet the will to execute; the latter, everything to prevent the patient executing his will. The two restraints differ in their results in this: The chemical prevents the desire to act madly—to laugh, scream or destroy; mechanical restraints serve as an irritation, and cause the greatest desire to accomplish, yet the victim can not. His unrelieved desire drives him to greater madness, like one in continued nightmare. An example of the effect of mechanical restraint may be witnessed in grasping a nervous, crying child; or a woman when laboring under nervous excitement which impels her to walk, or a man who is angry. In each case the crying, the walking or the anger will be increased. Any one who has had to do with persons in convulsions has observed that the holding the hands and limbs of such persons increases the convulsion to the most intense activity, and that the stimulous of the restraint acts like the interrupted current of electricity from a powerful battery, and the victim of the disease is far more exhausted than if left entirely alone.

Example.—H. G., a young man of twenty-one years, was admitted in July, suffering from acute mania. He was put in a crib at once and locked down. He did not cease to resist the confinement by great muscular effort and swearing for two days and one night. When he was ordered released and permitted to walk out with an attendant, and to engage in work and to smoke, his mind became calm, and in a few weeks he was as able as ever to labor and amuse himself.

E. S., a young married woman, had been strapped to the restraining chair for weeks, besides her arms and hands being confined by a camisole. She was never quiet, bound down as she was; she constantly squirmed and writhed in the chair; the removal of all restraints, instead of being followed by dangerous conduct, was followed by words and acts of appreciation of the greatest kindness. She is as insane to-day as ever, but no longer an object of danger or disgust, having at least the pleasure of walking the wards, rocking by the window, or stretching her weary limbs at full length upon the lounge when so disposed. Hundreds of instances could be given like the above, to show the exciting quality of mechanical restraint.

Instead of there being more noise in the wards, there is now far less, and the administration of chemical restraints less frequent, because the excited patient being permitted freedom of bodily motion will take such exercise as will promote nature's desire for sleep.

It is a mistaken, though popular idea, that insane persons are not teachable, and that they can be managed only by force; whereas, in truth, they are frequently quite apt and close observers, and the majority have sufficiently good memories to at least remember all the evil words spoken to them, or the cruel treatment they have received at the hands of others. They are like grown up children, with acute perceptions, frequent lack of reasoning power, hence false judgment as compared with imperfect will power. It is noticeable that those who were never profane or vulgar soon become so by association with those who are, and those who were gentle soon learn to give blow for blow as well as word for word, just as children do. And just as the gentle and intelligent parent or teacher may manage and reform the most thoughtless and so-called wicked child without resorting to the whip or loud abuse, so may the violent insane person be managed by those who have the heart, the patience and calmness of demeanor. Some of the best attendants upon the worst wards of the Hospital are the slightest physically, and no one would find employment simply because of physical strength or a superabundance of brute force. The problem of abolishing all mechanical restraints will never be solved until the model attendant is found to take charge of the patient. No matter how wise or

how unsympathetic the physician may be, the wards of a hospital for the insane are sealed books to him; the one condemned to enter the wards as crazy or "mad," soon learns that he or she has lost the right all other human beings possess, that of making complaints which will attract serious attention. No one knows or can know what the insane may or do suffer at the hands of thoughtless, cruel, wicked employes, who are intended to be companions, friends and instructors of those placed under treatment.

The reform in the care of the insane in this institution may be dated from 1865, before which time the horrors and cruelties of a previous century were in vogue, a condition which we could scarcely believe were it not given directly by an eyewitness, who is now among the oldest and best known alienists of the West, Dr. W. W. Hester, now of the Illinois Southern Hospital for the Insane. In a letter which shows the good heart and progressive spirit of the times, he says:

ILLINOIS SOUTHERN HOSPITAL FOR THE INSANE, }
ANNA, ILL., October 27, 1883. }

DEAR SIR: I see by the papers you have begun the work of instituting the non-restraint system in the control of the insane under your charge. I write to give you a word of encouragement, as I can stand to your back with nineteen years of practical work in the direct management and treatment of the insane, and from an experience of 30 per cent. of restraint shackles, besides, the practice of shower with cold water in the faces of unruly patients, and the use of ducking (plunging the patient's head under water until they cried enough and submission), etc., all of which I found practiced at the Indiana Hospital for the Insane, when I was appointed to service on the 21st day of February, 1865. I had then just emerged from a term of three and one-half years' service in the army, fresh from the field of carnage and the human indifferences an army life begets, but I saw nothing in the army practices so horrifying to me as my early experiences in hospital life. Suffice it to say, that gradually, in my department, I excluded all these extreme practices, and when I left the hospital in June, 1879, the restraint system had been reduced to its minimum use, and in the memory of the oldest hospital inhabitant the barbarous appliances and practices of previous times were forgotten. There is in use here, in my department (for women), very little restraint. With an average of 260 women, I have only two cribs—piano-front lift style—which are seldom used for restraint purposes, and only in such cases as your experience has already taught you they are useful for. Have the folding top locked back when not needed, to secure recumbency of the patient. Use no muffs, no straight-jackets, save a short-cut round-about, endless sleeves, etc., etc., so that our account of restraint, which is kept in a systematic order, and inspected and governed by me hourly, all of which averages, of all restraint, only half the time for one person, as stated, with an average of 260 persons in daily attendance.

Now, what can be done in one place can be done in another. The utter complete abandonment of all means of restraint, I would consider as inhumane as the extreme use of it. In its stead would come seclusion, which, in my experience, is very hurtful and ruinous from a clerical stand point, as well as from other humane considerations. I never dose a patient with sedatives because he is merely noisy or refractory. I use no chemical restraint. I consider them applicable only in conditions tending toward exhaustion, as my medical record of medicines prescribed will show.

I hope you will pardon this intrusion on your time, but I was so delighted at reading of your recent steps taken for the welfare of the insane for whom I have such deep

sympathy, etc., I could not refrain writing you to encourage you to go on with the good work. Whatever of ill usage and tongue abuses I have been the subject of whilst connected with your hospital, all grew out of my making enemies by reprimanding those who were belligerent and inhumane in their care of my patients, the helpless insane, and having an inward conscience that I tried to do my whole duty in a humane manner, I am content.

I wish you, Doctor, and your assistants, all the success desired in your great work.

Yours truly,

W: W. HESTER.

The reform inaugurated by Dr. Hester has been continued, and since the first of July, 1883, there have been abolished from the wards of this Hospital 269 restraint chairs, 120 cribs, 101 camisoles, 107 restraint straps, 55 pairs of restraint gloves, 56 wristlets, and two leather collars.

A comparison of the monthly reports for the month of November, 1882 and 1883, will show what has been gained in favor of non-restraint during the last four months. To those unacquainted with the management of this Hospital, it may be stated that there are two large buildings under one management, situated about three hundred yards apart—one department for men, the other department for women. They are known as the D. F. M. and D. F. W.:

SYNOPSIS OF DAILY REPORTS OF WARDS, NOVEMBER 1882 AND 1883.

REMARKS.	No. on Ward.	Employed in Ward.	Employed out of Ward.	Sick, in Bed.	Taking Medicine.	Crib, Day and Night.	Crib, Night.	Restrained Otherwise.	Injured.	Walked Out.	Special Diet.	Not Eating Well.	Destructive.
D. F. M.													
Nov. 1882 . . .	19,151	3,544	2,328	152	4,388	79	957	525	5	2,429	352	209	62
Nov. 1883 . . .	18,285	3,150	1,334	85	3,518	4	14	9	1	8,459	687	297	70
D. F. W.													
Nov. 1882 . . .	13,850	1,035	544	228	7,379	164	1,641	583	10	4,123	1,413	199	34
Nov. 1883 . . .	14,832	1,881	757	90	4,350	2	110	15	4	8,558	1,816	323	341

There is yet a difference of opinion as to whether all forms of mechanical restraint can or should be dispensed with. It would be considered reckless for one having but a few months actual experience with a large number of insane persons to assert that they should; yet that is my firm conviction. To the economist, we acknowledge that the outlook is not favorable to retrenchment in expenditures; but it will be encouraging to the philanthropist as well as curative to the patient. It may yet be proven economical to a State to use other means of keeping insane persons rather than keeping them tied. It may be found cheaper to make most of

Since the above was written, I am happy to state that from Christmas day, 1883, until this date, February 13, 1884, no restraint of any kind, known as mechanical, has been used save in one instance. Seclusion in a room (not a dark room) has been resorted to for short periods on occasions of great excitement. Our number of attendants has not been increased. We have had fewer patients injured, we have had fewer escapes, a less number on the sick-list, the same number of suicides (one), and a less number of deaths by one than during November, December, and January a year ago. A remarkable fact, to be particularly noted, is, that not more than one-fourth as much sedative medicine (or other form of chemical restraint) has been used.

them self-helpful, and all of them more cheerful, by a systematic training and instruction, by precept and example (particularly the latter) in matters of carefulness, industry and self-reliance, which can only be done by procuring the higher grade of talent on the part of the attendants.

The day has gone by when specific medication in insanity is thought of. The treatment is largely custodial with no further curtailment of personal liberty than is necessary to prevent injury to the patient by himself. I see in the dim future foreshadowed an enlightened and philanthropic generation who will convert our prison-like hospitals into large training schools and industrial colleges for the insane, and the place of attendant, now synonymous with servant, will then be filled by the best paid and most skillful teachers in the land. The physician will do little more in such institutions than he does now in large schools and colleges—treat such current ailments as arise in any small community, and no more.

Since this paper was written, I have received, through the kindness of Hon. George L. Harrison, President of the Board of Public Charities of Pennsylvania, the report of a commission appointed by Governor Hoyt, to "consider the question of the care of the insane of this Commonwealth," etc. This commission, as will be seen, consisted of a selection of the best, from the brightest men in law and medicine to be found in the country—who, for learning, probity, and philanthropy, are unexcelled in the world. Upon the subject of Restraints, the commission closes its report as follows:

"5. RESTRAINTS. If there were more exercise and useful occupation, there would be less employment of mechanical, or even medicinal restraints, advocated and practiced by some superintendents.

"In English hospitals restraints are considered injurious; they rely solely upon moral influence of suitable kind, occupation, and exercise, and have found by experience, that when patients have had such reasonable treatment, there was no need of mechanical restraint of any kind. The suggestion by the advocates of mechanical restraints, that were they not used, medicinal sedatives are more largely employed, is a false one. On the contrary, the irritation caused by the former is not experienced, and thus the various drugs used to relieve it are not necessary. These statements are based upon unquestionable personal knowledge and observation. In institutions in this country, where the abolition of restraint apparatus has taken place, the same results have followed. 'To-day,' says one of these superintendents, 'we use no straight-jackets, straps, etc.—the absence of restraint and the occupation of the patients have been most satisfactory; the patients have quietness, more happy, and many have recovered while working, who otherwise would not have done so, or would have recovered much more slowly. I have become convinced that a great deal of liberty can be allowed most patients, and that to their advantage and happiness.'

"If restraints are used at all, they should be restricted to patients of a suicidal or homicidal tendency, and be applied only by the personal direction of the superintending physician. But in all other cases their use should be prohibited. We think they should be prohibited altogether.

"Signed,

"JOHN F. HARTRANFT,
 "RICHARD C. MCMURTRIE,
 "JOSEPH A. REED, M. D.,
 "S. WEIR MITCHELL, M. D.,
 "J. T. ROTHROCK, M. D.,
 "L. CLARK DAVIS,
 "GEORGE L. HARRISON,

"Commission."

THE STATE AND ITS INSANE.

BY JOS. G. ROGERS, M. D., LATE SUPERINTENDENT INDIANA HOSPITAL FOR INSANE.

Previous to the commencement of the present century there were but two institutions for the care of the insane in the United States—the Pennsylvania State Hospital and that at Williamsburg, Virginia. The number of insane persons in this country then was unknown. In England and Wales, at that time, there were but fifteen asylums, public and private, and, officially registered, about six thousand insane.

Now, there are eighty-five asylums in this country, and about ninety thousand insane persons; in England and Wales, one hundred and seventy-five asylums, and about seventy-four thousand registered insane.

In 1840 there were two hundred and forty-one insane in Indiana, the population then being about a half million; the ratio, one in two thousand. In 1880, in a population of about two millions, there were, as nearly as can be estimated, twenty-five hundred lunatics; one in every eight hundred. It must be remarked in this connection, that the increase of the ratio must be considered in the light of the facts that enumeration forty years ago was very imperfectly done, and that, in newly settled territories, the population is mainly composed of the sound and vigorous, the tide of emigration leaving its refuse stranded on older shores.

In no part of this country can the sociologist find statistics sufficiently free from accidental sophistication for accurate use in determining the real increase of insanity in the population of the world at large. Even in Great Britain, with its comparatively unvarying types of population and admirable methods of enumeration, in use for many decades under the auspices of the Lunacy Commission, it is conceded that the increase of ratio is in part more apparent than real. Therefore, it is not to be assumed that, within a period of forty years, the ratio of insane to population has increased from one in two thousand to one in eight hundred. That it has slowly but surely increased, however, is the verdict of the most careful analyses of available facts. That it will continue to increase is inevitable until society wakes to the danger and defends itself by permanently assuming the care of all insane persons, and by enforcing rigid regulations for the ablation of every predisposing and exciting cause of insanity. To perfectly achieve a millenium of mental health may never be possible; but vigorous efforts have been and must continue to be made towards that end. With the spread of sociological knowledge has grown a demand for protective measures, not simply against the unreasoning acts of the madman, but against madness itself—not only that the victim of mental disease be humanely and scientifically cared for in proper hospitals, but that the germs and causes of the malady be, as far as possible, rooted out from society.

The provision of means for the care of those already insane, and the protection of society from the effects, present and future, of their acts, are the prime demands because the reasons therefor are most salient. It is to this division of the subject that I wish to direct your attention.

The first movement, with practical result, in Indiana, toward asylum provision was a memorial introduced to the legislature in 1832, by Mr. Hannegan, from Dr. John Evans and Mr. Isaac Fisher. Dr. James Ritchey, chairman of the committee to which it was referred, reported favorably and offered a joint resolution, which was passed, requesting the Governor to make inquiry and report to the next General Assembly all relevant facts, with plans and estimates for an asylum for the insane. Governor Bigger, in his message to the Legislature of 1843-4, made such report, with plans prepared by Mr. L. P. Smith, of New Albany, based on those of the Massachusetts and Ohio asylums.

On January 12, 1844, Dr. W. T. S. Cornett, of the Senate, now a venerable and honored resident of Madison, the revenue bill being under consideration, moved an amendment: "That one cent on the hundred dollars be levied as a fund with which to erect a lunatic asylum." This was adopted. The sum of \$12,000 accrued during the year therefrom.

The General Assembly of 1844-5, pursuant to an able and earnest message from Governor Whitcomb, passed a bill, reported by Dr. Ritchey, directing the purchase of a site. Dr. John Evans, Dr. Livingston Dunlap and James Blake, Esq., were constituted a commission to carry out the law.

In 1848, \$50,000 having been expended for buildings, etc., the present Hospital was opened, under the superintendency of Dr. R. J. Patterson, by the admission of forty patients into what is now the south wing of the department for men. One hundred and four were admitted during the ensuing year, as rapidly as room was provided.

The census of 1850 gave the number of insane in the State to be over six hundred; in the United States fifteen thousand six hundred and ten. At this time there were thirty-two public and private asylums in the country.

In 1851 the Constitution of the State was re-established. In Article IX. thereof are the words: "It shall be the duty of the General Assembly to provide by law * * * for the treatment of the insane." In 1855 the hospital had capacity to accommodate two hundred and twenty-five inmates; in 1857, capacity for three hundred. On April 3, of this year, on account of the failure of the Legislature to appropriate funds, three hundred and three inmates were sent home to their counties. A large majority of these were placed in poor-houses, the remainder were confined in jails and out-buildings at their homes. Twenty were subsequently cared for in the asylum under an arrangement with the counties. In October the institution was re-opened, funds being extra legally supplied by the State officers. In 1863 and 1864, a similar condition was similarly met, without, however, the discharge of any inmates. In the meantime, no advance was made in the increase of capacity, notwithstanding the biennial demand therefor on the General Assembly.

According to the census of 1860, there were one thousand and thirty-five insane persons in the State.

In 1865, \$35,000 appropriated to erect buildings for the chronic insane, was applied to the construction of the north wing of the existing building. Between this period and 1870, the north wing and rear center were completed, and in the latter year opened for patients. In the following five years the south wing was enlarged and the basement remodeled, thus bringing the capacity of the hospital to the number of six hundred and forty. The chronic need for more accommodation, always inadequately met, still existed. There were two thousand insane then in the State, and only one-fourth cared for.

In 1875, after much conflict of interests and theories as to location and system, the construction of the present department for women was authorized by law. En-

tirely finished and equipped in no part, it was partially occupied in 1879, since which time it has remained a monument of the neglectful procrastination which has for forty years till now characterized the legislation of this State in this relation.

With the General Assembly of 1883 must always rest the honor of at length fully fulfilling the constitutional obligation of thirty years duration.

The question, "What shall be done with the chronic insane?" has been answered by the law, and, four years hence there need be none not comfortably cared for by the hand and under the eye of the State.

Having a hospital which, when complete, as it will be within the year, will accommodate fourteen hundred, the three additional institutions authorized by the Legislature, will afford asylum room for all the remainder of the State's insane for many years to come; and, if they be made upon an elastic plan, for all time, perhaps, in which present generations are interested.

It may be thought by some, even those moved by the highest philanthropy, that such sudden and extensive provision is scarcely warrantable; but were relative facts fully known, no citizen, I aver, would gainsay it.

There may be other plans to meet the need which would require less disbursement, and yet be efficient, but none scarcely which, in a long future, will so well suit the people of the State at large. As a rule, small asylums, *ceteris paribus*, afford better results than very large institutions, simply because less labor is required of the management to attain a given standard of efficiency. It is not to be understood, however, that large asylums have not been or can not be successful. Experience with such, in this country, has been limited, but the old world has many satisfactory examples of aggregations of large numbers of insane. The following is a list of asylums in England, each containing more than a thousand inmates:

<i>County Asylums.</i>	<i>Inmates.</i>
Maidstone, Kent	1,253
Lancaster Moor, Lancaster	1,118
Prestwich, Lancaster	1,211
Whittingham, Lancaster	1,260
Banstead, Middlesex	1,702
Colney Hatch, Middlesex	2,173
Hanwell, Middlesex	1,841
Wandsworth, Surrey	1,028
Brookwood, Surrey	1,050
Wakefield, West Riding, York	1,400
Sheffield, West Riding, York	1,125

<i>Metropolitan District Asylums.</i>	<i>Inmates.</i>
Teavesden, Derts	1,990
Chatterham, Surrey	2,090

In the city of Paris, La Salpêtrière and the Bicêtre each have a capacity for about three thousand. In this country the Willard Asylum for the chronic insane, at Willard, N. Y., reports 1,651; that at Stockton, California, 1,095; the Indiana Hospital for the Insane, 1,130; the Columbus Asylum, Ohio, contains nearly a thousand. There are none other among the eighty-five institutions in North America which approach these in size. Their average capacity may be estimated to be for five hundred.

The Association of American Superintendents of Institutions for the Insane, the oldest national medical organization in this country, has, from time to time, embodied the experience of its members in a limited and carefully considered series of resolutions or tenets. Prominent among these is one urging the number of two hundred and fifty as a proper limit of capacity in any institution for the insane. Economic considerations have, as a rule, however, forced the adoption of much larger capacities as before intimated, in most establishments in America as well as in Europe. To a certain extent, the aggregation of the insane in large numbers lessens the expense of their care *per capita*, the same accommodations, comfort and supervision being received. The same rule applies to the construction of asylums. That it has no limit in its application, however, is conclusively disproved by an article in a recent number of the *London Lancet*, by Dr. Rayner, Superintendent of Hanwell Asylum, one of the largest in the world, in which are set forth statistics showing that English asylums having capacity for between four hundred and fifty and six hundred and fifty have cost less to build and maintain than those whose capacity was either in excess or less than the mentioned limit. In the United States and Canada most institutions are of this class, as to size. As the number of insane has increased, and need for increased accommodation has arisen, subdivision of establishments has been resorted to rather than an increase of capacity beyond the mentioned number. That this was not done in Indiana in 1875, was due to force of circumstances, which seemed to compel a compromise with the dictation of expert special experience. That the latter did not control the final action will always be regretted by those of our citizens who have carefully and judiciously considered the subject, and especially by those to whose lot it may fall to bear the real responsibility of the management of our present enormous institution. Good results may be secured in the future as in the past, but the attendant labor and anxiety will always be a straining *onus* on those who carry it as long as it is devoted to its present use, that is to say, as long as it may be a hospital for the cure of insanity as well as an asylum for the so-called incurable insane. With a view toward relieving the institution of its complexity of function, and thereby lessening the labor of its successful management, the last General Assembly was urged in the annual report of 1882, to convert it into an asylum for the chronic insane solely, and to make other provision for all recent and presumably curable cases, as long as they should remain such, the overflow, so to speak, from time to time, being removed to the asylum. It was further urged that, although the separate care of the chronic insane might be antagonized by high authority, the practical results secured in the great asylums at Willard, New York, in this country, and the Metropolitan District asylums in England, sufficiently answered even such opposition. Moreover, the present possession of our institution, so well adapted to this purpose, on account of its great size, would seem to force upon the State the adoption of this plan. Especially from an economic standpoint does this scheme commend itself. The most desirable and approved provision for the chronic class *alone* can be secured at a much less expense *per capita* than is *absolutely necessary* for either the recent or the mixed population of both grades.

The General Assembly has made provision for three additional institutions. If, in the construction of these, view be retained of the facile adaptability of the present establishment to the sole accommodation of the chronic insane of the whole State for years to come, and they be made small hospitals rather than asylums, existing appropriations will meet all necessary expense, and the dictates of the best expert experience of the civilized world will have been practically followed. If such arrangement be now made, future generations will discover no cause to regret

the action or criticise the judgment of the present. There is no obstacle in existing law or custom which can not be easily removed by the next General Assembly. It is the earnest hope of your reader that it may be done.

Assuming that in the distant future the capacity of the existing buildings might be insufficient for all chronic cases, the demand for more room may be properly met by placing the quiet and harmless class, about twenty per centum of the whole number, in detached buildings of more economical construction, located upon the present domain of the asylum or in colonies on land to be purchased within controlling reach of the headquarters of the management.

An aggregate hospital capacity of six hundred will accommodate all of the class of recent and assumably curable cases. Between three and four hundred such become objects of the State's care each year. Between forty-five and fifty per centum of these recover within a period of two years from admission to the hospital. Two out of five are permanently cured. Twenty per centum relapse or recur. Of the other fifty per centum, from five to ten per centum succumb to disease, and the remainder become chronic. These are the statistics not only of Indiana, but are those of the better class of institutions throughout the world.

The enumeration of the insane has long been a requirement of the law of the State, but, in the absence of any reward or penalty, officers have to such an extent ignored it that no trustworthy data have been secured through this means. An effort was made in the last Legislature to correct this deficiency of the law, and it is hoped that hereafter the State Bureau of Statistics may be able to furnish exact and comprehensive information on this most vitally important topic.

The knowledge at present available of the number of the State's insane has been secured by correspondence with county officials from time to time.

In December of last year the following interrogatories were sent to the superintendents of all county asylums for the poor of the State:

1. How many insane in your asylum?
2. How many require restraint of any kind?
3. What restraint are you obliged to use?
4. How many are confined in cells?
5. How are these furnished, heated and ventilated?
6. How many will not wear clothing?
7. How many will not sleep on a bed?
8. How are they fed?
9. What facilities have you for bathing them?
10. How many attendants have they? How many have neither estate nor friends?

I have received responses from seventy-five counties. The superintendents, as a rule, being very anxious to be relieved of this class of inmates, and seeing in a presentation of facts to the people a basis for a faint hope of such relief, have been prompt to reply. The total of insane persons reported is 658. It may be closely estimated that the seventeen counties not heard from will swell the number to 800. It is impossible to tabulate fully the results of the inquiry, owing to the lack of uniformity in the responses, but salient facts can be exhibited.

The following is a list of the numbers of insane inmates in the various county asylums reporting, being an answer to the first interrogatory:

Adams	7	Madison	9
Allen	30	Marion	86
Bartholomew	13	Marshall	3
Benton	11	Martin*	—
Blackford	2	Miami	8
Boone	2	Monroe*	—
Brown*	—	Montgomery	7
Carroll	3	Morgan	5
Cass	12	Newton*	—
Clark	12	Noble	10
Clay	5	Ohio	3
Clinton	8	Orange*	—
Crawford*	—	Owen	11
Daviess	4	Parke	13
Dearborn	16	Perry*	—
Decatur	1	Pike	1
Dekalb	0	Porter	7
Delaware	13	Posey	1
Dubois	7	Pulaski	3
Elkhart	27	Putnam	4
Fayette	15	Randolph*	—
Floyd	10	Ripley	5
Fountain	8	Rush*	—
Franklin	9	Scott*	—
Fulton	5	Shelby*	—
Gibson	7	Spencer	11
Grant	6	Starke*	—
Greene	0	Steuben	1
Hamilton	6	St. Joseph	12
Hancock	3	Sullivan*	—
Harrison	6	Switzerland	5
Hendricks	9	Tippecanoe	40
Henry	3	Tipton*	—
Howard*	—	Union	1
Huntington	6	Vandeburgh	22
Jackson	9	Vermillion	6
Jasper	3	Vigo	15
Jay	1	Wabash	5
Jefferson*	—	Warren	5
Jennings	5	Warrick	1
Johnson	10	Washington	6
Knox	8	Wayne	17
Kosciusko	3	Wells	1
Lagrange	1	White	4
Lake	8	Whitley	3
Laporte	13		
Lawrence*	—	Total, 75 counties	658

Among this number there are subject to general restraint, 265; kept in cells, 116; chained in cells, 8; wearing the ball and chain, 6; who will not wear any clothing, 59. Where cells are used, the door and window are usually barred with iron, and have a prison aspect. Special ventilation is rare. Some are heated by steam, but the majority by stoves in the halls, more or less remote. Many will not sleep in a bed, and are simply supplied with a couch of straw, with or without a tick, according to the destructiveness of the patient. A large proportion are fed in pans, handed into the room through a small wicket in the door. Facilities for cleanliness of person and rooms are not generally good. Attendance is scanty and unskilled in the majority of instances.

*No reports.

Superintendents seem to have done everything in their power, with the means and advantages afforded them; but, oftener than otherwise, both means and methods appear to be modeled after those of the mad-house of the eighteenth century, as pictured by Hogarth. Discipline and punishment seem to be often recognized as proper, and one superintendent, in reply to the query, "What kind of restraint do you use?" answers laconically, "The rod."

There are some notable exceptions in which the reports give evidence of a close approximation to the most approved means and methods of the most reputable State institutions. These are not numerous, however.

The experience of Indiana in the care of the chronic insane in county asylums is entirely parallel with that of other States in the Union. Many influences and conditions co-operate always, and always will, to make the system unsatisfactory. New York has deprived its counties, with a few special exceptions, of the right to care for the chronic class, and has provided two capacious establishments for this purpose. That at Willard, with a capacity for 1,700, has been in very successful operation for some years. Our own State may well follow the example, having already an institution well suited as it stands, and capable of extension, as before intimated, whenever in the future it may be necessary. Two-thirds of its present population are of the so-called incurable class; the number in the whole State will amount to about 1,800, and the question of their bestowal is one which seems to be settled by existing circumstances. Either all the institutions, old and new, must be devoted to mixed populations of curable and incurable inmates, or the present hospital must be used for the latter exclusively, and the proposed establishments for the former class.

In any event, the new hospitals will be small, as indicated by circumstances and the law, and therefore they will, in so much, be suited especially for this purpose. The principle of subdivision of the mass of insane has a limit, however, of advantageous practical application. Whenever segregation has gone so far as to interfere with the efficient, facile and direct supervision and administration of a single responsible head, a halt should be called; and it must not be forgotten that reasonable economy demands a limit to the number of such heads.

EFFECTS OF SCHOOL LIFE UPON EYESIGHT.

It is known in a general way among the people that school life is in some manner prejudicial to the eyesight, and that a certain proportion of the pupils pursue their studies with inconvenience. It is also supposed that some, perhaps, have received permanent injury from over-use of their eyes at school. Beyond these general ideas it is probable that the information in the possession of the public does not go; and if the question be asked, What is the nature of the injuries received? no more definite answer can be obtained than that the eyes are "weak" from overuse.

As a clear statement of a question is the first step to its solution, so is the proper appreciation of an evil the first approach to its removal. It is desirable, therefore, if we would lessen the evils of school life, that we determine their nature and

acquaint ourselves with the conditions giving rise thereto, and thus ascertain how far the duties incident to attendance at school are responsible. This is no more than is urgently demanded by the prominence which this matter must take in the provision which we are called upon to make for the education of the young. In this lies the duty which we owe to ourselves and to them—to see that the privileges which they enjoy shall not be imperiled, but that there be secured to them the full benefits which our institutions afford, free from the dangers which daily observation has shown to exist; thus securing to them the perfection of their physical powers in combination with highly cultivated mental powers, doing our part in this way toward the realization of that ideal of the physiologist, a sound mind in a sound body.

Of all the organs of sense concerned in the labor incident to school life, none are so intimately involved as that of sight, and therefore being exceptionally concerned, it should be exceptionally cared for. With this in mind, and in view of the fact that upon the integrity of the eye depends in a measure the success and happiness of those to whom the Commonwealth must look for its future welfare, the Board of Health has deemed it as eminently within its province to call the attention of the public to the effects of school-life upon the eyesight of children.

In complying with the request of the Board to prepare a paper upon the above subject, it is the desire of the writer to discuss it in a manner as foreshadowed by the above reflections, and while avoiding such minutia as would make its perusal wearisome to the general reader, to enter so far into details regarding the nature and extent of the evils incident to attendance at school as may be necessary to afford that vivid mental impression that arises from a personal acquaintance with the facts upon which conclusions are to be based, and without which the reader can not appreciate the necessity of attempting the removal of the evils complained of, nor feel impelled to active efforts to accomplish that result.

Of the diseases to which the eye is liable, their name is legion; but we have now to consider only such as are promoted by the use to which the eye is put in school, and will not therefore include that large class of diseases that affect the exterior of the eye, of which inflammation, granulations, etc., are the obvious symptoms, and which, instead of being promoted by attendance at school, are rather lessened, inasmuch as a common cause of their existence, uncleanness is discouraged by school-life.

The disorders which here concern us, are those which have been shown by experience to bear an intimate relation to school work and affect those parts especially, that are taxed in the prolonged close work required by our methods of study. The symptoms, so far as ordinary observers are concerned, are therefore chiefly subjective, and likely to be overlooked. Certain it is that their significance is not likely to be fully appreciated, and work is continued to be required of the eye, not unfrequently to the ultimate detriment of that organ.

OPTICAL CONSTRUCTION OF THE EYE.

The eye, reduced to its simplest elements, is but a camera obscura in miniature, with refractive media and a sensitive surface for the reception of the focal image, and having provision for adapting the organ to near or distant vision. The lens or refractive medium of the camera has its analogue in the crystalline lens of the eye. The sensitive surface corresponds to the retina, the nervous layer of the eye, while in the zone of muscles, called the muscles of accommodation, we have an arrangement for altering the focal length of the apparatus.

Excluding these muscles and their use from our mind, this optical organ transmits and focuses light by virtue of the physical properties of its elements in conformity with the ordinary laws of optics, and entirely independent of any expenditure of vital force. Were the humors made of glass or other transparent substance the result would be the same. Independent of consciousness or volition, images of external objects are formed upon the nervous layer of the staring eye of the epileptic as well as during consciousness. In the muscles of the eye, however, we have tissues possessing physiological functions, and which are subject to fatigue, exhaustion, spasm or paralysis, as muscles in other parts of the body, rendering use of them inefficient or impossible. The attempt to use them under these circumstances may result in irritation, which, extending to other parts of the eye, may determine disease process affecting portions of the utmost importance to the usefulness of the eye.

I have thus endeavored to show that the eye is a physical optical instrument, with a physiological attachment in the muscles of accommodation, and that it is in the latter lies the liability to fatigue, irritation, etc., to which the eye is exposed in over work. It is in them that we must look for the first expression of discomfort from use of the eye, and upon the amount of labor which they are called upon to do depends, under ordinary circumstances, the hurtfulness or harmlessness of any specific work.

Any condition, whether within or without the eye, which causes undue strain upon these muscles is to that extent injurious and to be avoided. Before considering the occasions that make such demands upon these muscles, it is well enough to recall certain simple facts of optics.

First. Parallel rays of light entering a convex lens are brought together at a point called the principal focus of the lens.

Second. Diverging rays of light entering a convex lens are brought to a focus at a point more distant from the lens than the principal focus, this distance being the greater the greater the degree of divergence of the entering rays.

Third. The stronger a lens is, the nearer lies its principal focus.

It follows that if we would have the focus for diverging rays at the same point as that for parallel ones, provisions must be made for making the lens stronger, and the focal distance thus diminished. For convenience of description, light entering the eye from an object fifteen feet distant, and beyond, may for all practical purposes be regarded as parallel. If from a point not so distant they are regarded as diverging, the degree of divergence increasing the nearer the object is brought.

These principles, applied to the eye, will explain the phenomena of sight, so far as the reception and refraction of light are concerned. Thus distant objects are focused distinctly upon the retina of the normal eye *when in a state of rest*, that membrane being situated at the principal focus of the refractive media. When, however, the object is brought nearer to the eye—the light thus entering the eye in a diverging direction—were the eye to remain at rest, the focus would fall behind the retina, according to the optical laws already indicated. Could the position of the retina be changed, this want of coincidence between the position of that membrane and that of the focus might be corrected, but as this is impossible, the alternative of strengthening the lens is employed. This is secured through the agency of the muscles of accommodation already referred to, which by their contraction strengthen the lens in proportion to the degree of divergence of the rays of light from the object, as it approaches the eye. The nearer the object is brought, with consequent increasing divergence of the rays, the greater is the strain upon these muscles, until finally a point is reached where their power is exhausted, and no

further change of the lens can take place, and distinct vision therefore impossible. This point is reached at ten years of age at about three inches in front of the eye. In consequence of increasing firmness of the tissues, whereby the muscles become relatively weak, at twenty years of age this point has receded to four inches, at thirty, to six inches. Furthermore, in the neighborhood of the near point, distinct vision can be maintained only by a maximum effort, and is, therefore, soon followed by fatigue. It is for this reason that at forty-five years of age—the near point having receded to eleven or twelve inches—nearly the ordinary reading distance—fatigue and blurring of letters are common, and artificial assistance is sought.*

ANOMALIES OF REFRACTION.

The eye which we have thus far been considering, may be regarded as the typical, perfect eye—known as the *emmetropic* form—and is characterized by the fact, that *parallel rays, entering the eye when in a state of rest, are brought to a focus upon the retina.*

Emmetropia does not, however, always obtain; on the contrary, we find a departure from this typical form in a majority of cases. This departure consists of peculiarities in the shape and size of the eye ball, whereby its principal focus no longer coincides with the position of the retina. The emmetropic eye, which is to be regarded as the normal eye, is about nine-tenths of an inch in its antero-posterior axis, but those we now have to consider are too short, so that the retina is too near the lens, and in front of the position of the principal focus. The short eye, technically the *hypermetropic* eye, is in fact in the same relation to parallel rays that the emmetropic is to diverging rays, in which case, as we have seen, for bringing these rays to a focus on the retina, the emmetropic eye makes a demand upon the muscles of accommodation. Similarly does the hypermetropic employ them in focusing *parallel* rays upon the retina.

In this latter case, inasmuch as some of the power of the muscles is used up in focusing parallel rays, and as diverging rays require a stronger lens than parallel ones, in order that the focus shall fall upon the retina, it will be seen that the additional strain required by diverging rays must sooner exhaust them, and that fatigue will ensue sooner than in the emmetropic eye. Experience shows this to be true. Furthermore, such eyes, on account of the early exhaustion of the muscles of accommodation, can not focus rays of such great divergence as the emmetropic eye, and hence objects can not be seen so close to the eye as in the emmetropic form.

Let me call attention to the fact that inasmuch as all distant objects give to the eye parallel rays, and all near objects divergent ones, and that as these two sets of objects include every thing that comes within our range of vision, it follows that *neither distant vision nor near vision is for such eyes a state of rest. In hypermetropia a state of absolute rest is therefore unknown.*

There is another form of anomaly of the eye, characterized by irregular curvature of the refractive surfaces, preventing accurate focusing, and liable to cause use of the eyes to be attended with discomfort; this is known as astigmatism. It may exist in the eye of normal size or complicate hypermetropia. In either case it will suffice for our present purpose, that we may associate it with the anomalous form, already described, in that it occasions, like that, a demand upon the muscle of accommodation to compensate for the defective refraction of the eye.

*NOTE. It is this relative weakening of the muscles by advanced age that occasions the necessity for glasses, and not the flattening of the eye ball, so generally regarded as the cause of "old sight."

I think a careful perusal of the above will enable any reader to understand why the anomalous forms described are specially liable to fatigue, and to the injurious consequences of over-work. *It is because a physiological function is called into play to compensate for a physical defect.* It will also be seen that over-work is but a relative term, and that work which is proper for a normal eye, is in excess for the anomalous forms. It is this fact that adds so much to the importance of watching carefully the manner in which the eyes of school children perform the work required of them, and adjusting the amount of work to the peculiarities of the eyes that show indications of suffering.

The interest with which these anomalies are to be regarded, and the importance to be attached to any proposition regarding their care, are much enhanced by the great frequency with which they are formed. Statistics on this point go far toward inducing us to modify our ideas regarding the perfect adaptation of means to end in nature, inasmuch as we learn that a great majority of eyes originally do not possess that form which reason and experience alike teach is the most suitable for the work required of them. This fact we would receive with much hesitation, were it not established by the examinations made by reliable observers, and confirmed by the experience of almost every one who has given the subject any attention. Thus, among children of the primary grades, before any change can have taken place, we find about 85 per cent. are included in one or other form of anomalies described. From these figures, based upon the examination of many thousands of children, reports vary but little, some being higher and some lower, but all agreeing that over two-thirds of the eyes of children are classed as above. These figures are startling, but from them I believe there is no escape. We may find some consolation in the fact that among the eyes so classed, are included many of a low degree of anomaly, separated from the normal form by but a line, rendering them but little less qualified for work than the typical organ. After making such allowances, however, there remains a large number, a majority at least, that come to the work of the school-room handicapped in the race. Among them are found the so called "weak" eyes; and from them comes those which have broken down from over-work. In the office of the specialist, whether the patient attribute the breaking down of his eyes to the amount of work, or to the nature of his employment, examination will usually reveal one of the anomalies of refraction as the predisposing cause.

In the considerable space which has been given to the congenital anomalies of refraction, the author has endeavored to show why certain eyes are more liable to break down under the influence of near work, such as incident to the school room, and at the same time pointing out the frequency with which these forms are met with.

The figures regarding the latter point are seen to be large, and suggest the possibility of some mistake, inasmuch as we are loath to believe that any anomaly which is so obviously a defect, should prevail to such extent. We can not, however, enter into any discussion why nature should have here made apparently such a mistake. It is enough for us to know that such is the case. We probably should have less cause to remark upon her methods, if our own course was more in conformity with her laws. Certain it is, that not until we enter upon our intensely artificial life, that the evil results that spring from the use of such eyes is manifest. Among the pastoral inhabitants of Central Asia, or among the nomads of our western plains, it is safe to say that there is little complaint of fatigue of the muscles of accommodation, and of our people, those whose life is outdoor, few even have occasion to know that they have eyes subject to fatigue.

MYOPIA.

We have now to consider a form of eye-ball, mention of which has been deferred until the forms already mentioned could become familiar to the reader, and because I wished this form to be separated in his mind from them as far as it is removed in its origin and tendencies. While those we have described are congenital in origin, this we are now to consider is, as a rule, derived from one of the other forms of the eye already described. While they may be quite free from disease, this usually presents evidence of pathological processes, and may be said to be in itself an evidence of disease. I refer to an eye, too long in its antero-posterior axis, and which is known technically as Myopia. Optically it is recognized by the fact that the focus for parallel rays lies in front of the retina. Distant objects—from which come parallel rays—are, therefore, indistinct. Only near objects,—those from which diverging rays enter the eye, having their image formed far enough back from the lens to coincide with the position of the retina,—are seen clearly. Such eyes are, therefore, called near-sighted. The degree of near-sightedness, depends upon the length of the ball, and may vary from that degree where objects a few feet away may be indistinct, to that degree, where the object to be seen clearly, must be brought to within an inch or so of the eye.

It will be readily seen how great a disadvantage near-sightedness must be to the individual in limiting his range of vision; practically, in a child, excluding him from many of the athletic sports suitable to his age, which are so necessary to physical development, and in a man compelling him to adapt himself to his physical defects; seeking a livelihood not unfrequently in uncongenial walks, abandoning cherished hopes and ambitions, and going through life with habits, tastes, and pursuits, moulded and determined by the defect of vision. As will be seen hereafter, this is not all the evils that attend upon myopia, inasmuch as in its higher degrees, processes are in progress that not unfrequently end in destruction of sight.

That the near-sighted eye is a diseased one, is far from being generally known; on the contrary, there prevails a popular idea that such eyes are strong ones. This is a serious mistake, and frequently leads to a disregard of the earlier stages of myopia. On this point, Prof. Donders, of Utrecht, says: "The well known fact that myopes, with a little light, can recognize small objects, and especially the fact that at an advanced period of life they need no glasses to enable them to see near objects, procured almost general acceptance for the prejudice that near-sighted eyes are particularly strong. That the contrary is true, the oculist by sad experience has too often been convinced." He concludes by saying, "I have no hesitation in saying that a near-sighted is not a strong eye."

The first expression of the processes which directly result in changing a short or medium length eye-ball to a myopia one, is in the outer or fibrous coat of the eye, by which its tissue is rendered less resisting, so that it yields to the intra-ocular pressure, and thus becomes distended in every direction. The alteration in the size of the eye may proceed to but a limited extent, giving the lower degrees of myopia, or it may go on indefinitely, leading to an excessively high degree. In either case, there is commonly found accompanying the distension, evidence of disease in the vascular and nervous coats of the eye. In the latter case, too, there is not unfrequently imminent danger of such serious changes in the humors and coats of the eye as to lead to ultimate blindness.

We will, however, no longer dwell upon this phase of the subject, but turn to that view of it which especially concerns us as guardians of our children's welfare; that is, its consideration in relation to school life.

DEVELOPMENT OF MYOPIA.

Myopia is a condition most common among the educated classes and appears to be almost peculiar to civilized peoples. At the beginning of the century Dr. Ware, of London, showed that it was more common among the inhabitants of the town than among those of the country, and McNamara tells us that it is almost unknown among the natives of India. Dr. Howe states that among the paupers of Buffalo he found but one and five-tenths per cent., and Cohn, of Breslau, states that among people of the country whose life is out-door that the per centage is about two per cent. Other observers coincide with these, so that it appears that from one and five-tenths to two per cent. represents the entire proportion of myopes among a people devoted to other than intellectual pursuits.

In marked contrast to this we shall see that among those who belong to the educated classes there exists a higher per centage, so that we are apt to find that the frequency with which this anomaly is found to serve, somewhat, as an index of the culture of a people.

The significant fact, however, which I desire to emphasize, is the intimate relation which the increase of myopia bears to school life, in that we find it increasing in proportion to the age of the child, and bearing such a relation to the time spent in school that its dependence in a great measure upon school life can not be questioned. This will be seen in the extracts from the report of various observers here given, whose opportunities have enabled them to study the refraction of the eyes of large numbers of school children. These studies have been chiefly made for the purpose of determining the frequency of myopia, that being the ultimate expression of change taking place in the course of certain pathological processes in the eye, and which furnishes an exponent of the degree of injury incident to school life.

Cohn, of Breslau, one of the most industrious workers in this field, has given us tables based upon the examinations of ten thousand children. From his table showing the per centage of myopia according to number of years spent in school, I take the following:

In school one-half year or less . . . . .	.4 per cent.
In school one-half to two years.	4.8 per cent.
In school two to four years	8.6 per cent.
In school six to eight years	11.3 per cent.
In school eight to ten years	24.1 per cent.
In school ten to twelve years	49.5 per cent.
In school twelve to fourteen years	63.6 per cent.

Of the results of his examination distributed according to classes we have the following:

Elementary	6.7 per cent.
Middle	10.3 per cent.
High	19.7 per cent.
Gymnasium	26.2 per cent.
University.	63.6 per cent.

These tables agree so closely with those given by other German observers, that we may regard them as being a correct representation of the frequency and the rate of increase among those in attendance upon the educational institutions of that country.

Erisman reports from St. Petersburg, that he found among 4,358 children of that city, an increase from 13.6 per cent. in the lowest to 43.3 per cent. in the highest classes. From another Russian writer, we learn the interesting fact, that among the children of the Ural, whose people are notable for their acuity of vision and freedom from myopia, we discern the same injurious effects of school life, in that the percentage of 7 per cent. in the lower classes increases to 40 per cent. in the higher.

In this country numerous examiners have arrived at much the same result, giving, however, a somewhat less percentage in the higher classes, a difference which may be due to the fact of our school life being shorter, or to an actual better condition of the eyes of American school children originally. Thus Derby and Loring, of New York, find among 2,265 children, an increase from 3.5 per cent. at 7 years of age to 26 per cent. at 21 years. Howe, of Buffalo, finds that of those who graduate from the high-school of that city, at the average age of 17 years, one-fourth are near-sighted. The correctness of these statements is established by the observations of numerous other writers. The statistics thus far obtained in this country are based upon examinations of children in our larger and older cities, such as New York and Philadelphia. Whether the more vigorous life of the children of our Western cities will suffice to resist successfully the injurious influence of school life remains to be seen. The observations which are daily made in the consultation room of the oculist show that the eyes of our children are not entirely secure, but as yet the actual examination of sufficiently large numbers of our Western children has not been made to give precise information of the extent to which the eye is yielding to the pressure brought to bear upon it. I beg leave to remind the reader before leaving these statistics, of what I have already remarked, that while these statements show the frequency and rate of increase of myopia, they also are to be taken as an exponent of the injurious effects incident to school life. Such a view of them increases their value to us, and indicates the frequency with which diseased conditions other than those associated with myopia are met with. These pathological conditions are, moreover, in the main of the same nature as those associated with myopia, and, as we will see hereafter, are probably active agents in producing that anomaly. Hence, since the greater includes the less, a consideration of the influences that promote the growth of myopia, will take cognizance of the causes of all the forms of disease above referred to.

Corresponding to the increase of myopia is a diminution in the number of hypermetropic eyes, with a very slight, if any, rise in the number of the emmetropic. Thus in the table of Erisman, whose per centage of myopia in various grades has been given, we find in the primary class sixty-eight per cent. of hypermetropic eyes, while in the higher classes they have fallen to forty-two per cent. The per centage of emmetropic eyes remains at about twenty per cent. throughout. These figures are to be remembered in consideration of the causes of myopia, and should be remembered in that connection.

CONDITIONS FAVORING INCREASE OF MYOPIA.

Regarding the conditions that promote the increase of myopia, there has been a general consensus of opinion that prolonged use of the eyes at a near point is favorable to that result, so that whatever requires such close approximation of the book to the eye, is indirectly a cause of myopia. Hence, poor light, or light from an improper direction, small or indistinct type, improper seating by encouraging a drooping position of the head, all are mentioned as favoring the production of this disorder. These points have now, however, been so generally insisted upon,

that there is a very general recognition of their correctness, so that in the erection of new buildings, and the furnishing and refurnishing of schools, proper provision is made for lighting the rooms and for seating the children. This should be universal and the severest condemnation should fall upon them in authority, who permit a departure from the provisions which science and experience have determined to be essential.

A comparison of the children attending school in suitable rooms, with those where the surroundings are objectionable, show in favor of the former. It is found, however, that under the most favorable circumstances, so far as buildings are concerned in regard to light, ventilation and seating of the children, that the proportion of myopia is but slightly diminished, and the question, what promotes this change in the form of the eye? remains without satisfactory answer.

In default of a solution of the problem, let us seek in another direction some light. If a study of the "environment" affords insufficient explanation, shall we be more successful in finding a clue to the cause of the evil, if we seek it in individual peculiarities? If all children attending the same school are subjected to the same influence, why do some develop myopia while others pass unscathed? We have seen that among the eyes with anomalies of refraction are found the "weak" ones. It remains for us to learn whether there be any relation existing between such eyes and myopia. What is the relation existing between the increase of myopia and the diminution of hypermetropic, mention of which has already been made.

For much light on this phase of the question, we are indebted to Dr. Risley of Philadelphia, who, at the expense of much labor—with sacrifice of time, health, and comfort—has given us the result of the optical tests and ophthalmoscopic examinations of five thousand eyes of school children of that city, noting carefully the condition of each. Those only who know the amount of labor involved in such an examination, and appreciate the value of exact observation, can fully understand the obligation under which he has placed us.

In stating the object of his observations let me use his own language. He says: "The question arises, whence come the near-sighted eyes? Obviously they are recruited from one or both kinds of eyes—hypermetropic or emmetropic—and inasmuch as myopia is attended by well known pathological conditions, which without doubt stand in the relation of cause, it is fair reasoning to suppose that the conditions of disease which resulted in distension of the eyeball, or near-sight, would be manifested some time before the resulting distension. If this were true, a careful study of the condition of the *fundus oculi* in all states of refraction, would furnish the strongest attainable evidence of the source of unhealthy myopic eyes."

Having made his examination and carefully and elaborately worked out his results, we find that they agree closely with the figures already given in regard to the relative frequency of the various forms of refraction in the different grades, and the same correspondence existing between the increase of myopia and the decrease of hypermetropia—the emmetropia maintaining a nearly uniform percentage—that has been elsewhere shown. From his elaborate tables, which would afford material for many hours of study, I have arranged the following table showing the relations of discomfort, disease, and impaired vision to the various forms of refraction: *

*Let me state that should any reader desire to correlate this table with the figures already given, showing relative frequency of various forms of refraction, that those here placed under astigmatism may be assigned to hypermetropia, inasmuch as 98 per cent. of all his astigmatic cases belonged to the hypermetropic form. Their separation in this table serves to show the evil influence of this complication.

	<i>E.</i>	<i>H.</i>	<i>As.</i>	<i>M.</i>
Uncomfortable	22%	37%	62%	60%
Diseased	32%	52%	80%	81%
Impaired vision	6%	23%	84%	100%

This table strikingly exhibits the relative frequency with which these three conditions bear to the various forms of refraction. Thus we find that while 32 per cent. of the emmetropic eyes exhibit evidence of disease, that astigmatism and myopia present 80 and 81 per cent., respectively. The frequency with which disease is found in the form with best showing, the emmetropic, affords food for thought.

Making deductions from this table, I again quote Risley, who concludes :

First. That the emmetropic eye is the model or standard eye—since emmetropia is shown not only to remain nearly constant in percentage throughout the school life, but that it was also the condition of health, and withal enjoyed the highest acuity of vision, and enjoyed the greatest freedom from pain.

Second. That the increase in myopia is from eyes with already existing anomalies of refraction, since in them was exhibited the highest percentage of disease, which also manifested itself in pathological changes, similar to, or identical with those usually regarded as characteristic of myopia.

From these conclusions he formulates the following proposition :

Given an emmetropic or normal eye, the probabilities are that no harm will come to it in the educational process. On the other hand, given an eye with an anomaly of refraction, especially astigmatism, the probabilities are, other things being equal, that the educational process will be fraught with pain and danger to the eye.

PRACTICAL DEDUCTIONS.

In concluding this paper, and drawing therefrom some practical lessons, I shall confine myself to a consideration of those conclusions which seem to be the logical consequence of the presentation of facts therein contained. In doing so, it will be necessary for me to pass by almost unnoticed many provisions necessary for the healthy use of the eye that well deserve attention. This can, however, be done without scruple, inasmuch as they have been repeatedly insisted upon by most writers upon the hygiene of the eye until their importance has been pretty fully recognized. I refer to the provision regarding illumination of school buildings, seating accommodation, character of type of text-books, and allied matters which constitute the environment of our school children.

Recurring to the paper, the reader will recall the deductions made relative to the strain upon the eyes—that their use at a near point involves the highest degree of strain upon the tissues of the eye, and that distant vision coincides with the state of greatest rest. From these two statements it will be seen that *prolonged use of the eye at a near point is the condition most liable to induce fatigue*, and to be followed by other consequences of a more serious character; and that if we would secure the greatest comfort and usefulness of the eye the methods of study employed in our schools should conform to the spirit of the above proposition. Much might be done in this direction among older children in forming a habit of frequently raising the eye from the book. Doing so, and reflecting upon what has been studied, will inure as much to the mental welfare as to that of the eye. For young children in classes the same end can be reached by frequent interruption of work for rest, recreation or oral instruction.

Again recurring to the paper, we notice the large proportion of congenital anomalies of refraction; but we will pass them for the present and turn our atten-

tion to the tables showing the percentage of myopia at the various periods of school life and the rate of increase. It will be seen, if we assume the age of the child on admission to school to have been six years, that between the class of children from ten to twelve years of age and that of those from fourteen to sixteen years of age there has been an increase of 350 per cent. A comparison of this with the increase in any other equal period, or a comparison of any two consecutive periods, will show that the greatest lies between the years of ten and sixteen, a period of life which is well characterized as critical, and evidently as much so for the eye as for the organs of the body. Even of those who do not develop myopia until after that age probably had during that time disease established which ultimately led to nearsightedness. It is clear what practical conclusion is to be drawn from this, viz.: That up to and including the last year of this period we should exercise special care for the eyes of children.

Even if the limit be reduced to twelve years, many eyes will be saved, for, under proper care, such as is entirely compatible with hard work, I think that eyes that have safely reached this age, and the sixth year of school life, are pretty secure under reasonable care, from a serious myopia. The limit of fourteen years, however, is a safe one. On the other hand, if a myopia be established before either of these limits, it becomes a matter of serious concern, inasmuch as such are in great danger of becoming progressive and leading to most untoward results.

With such facts before us, is it not reasonable to ask whether there can not be a modification of our school methods that will conform more closely to the requirements of the situation as viewed from the stand-point of the eyes?

One other fact remains to be considered; the relation existing between myopia and the congenital anomalies of refraction. Though extensive statistics on this point do not yet exist, the deduction to be drawn from Risley's tables are in such close conformity with what we might expect, and with the daily experience of ophthalmologists, that I have no hesitation in accepting them. In this direction I believe lies our way out of the dangers that beset us, and the sooner, therefore, that we adjust ourselves to this view, the better it will be for all concerned.

It is too soon, perhaps, to require that all children shall have their eyes tested upon entering school, though that would be a most reasonable course, and most in keeping with the scientific conduct of life. This will come in time. Meanwhile it is not too much to ask that every eye which manifests any inconvenience from the work required of it, shall be properly examined, and, if defective, receive proper attention.

It had been my purpose to urge that our teachers be instructed upon the dangers incident to school life, with suggestions as to their early recognition, but I find my limits have already passed those originally intended, and must therefore forego such intention. At present, if I may judge from the text books now in the hands of those who are being prepared for teachers, they are wofully ignorant of the simplest fact regarding the eye. These books, I may say, as a rule, contain nothing but the most antiquated views, and the best of them nothing relative to the hygiene of the eye of any practical use.

With this the paper is submitted to my readers in the hope that its contents, dry and voluminous as they are, may arouse an active interest in a matter that concerns most intimately every one who feels any interest in the good of his kind, or who is in any way concerned in the welfare of the rising generation.

DRAINAGE AND THE PUBLIC HEALTH.

BY GEORGE W. SLOAN, M. D., INDIANAPOLIS, IND.

GENTLEMEN—Those of you who have been engaged in the practice of medicine for fifteen or twenty years, or longer, have noticed a material change in many of the forms of disease incident to this locality, and especially a diminution in the amount of those forms commonly known as bilious fever and fever and ague. My object is to draw your attention to some of the causes for this, as gathered by my observation through a period of years.

In the first place, it will be remembered that this State was for the most part densely timbered, and this was supplemented by a thick matting of underbrush. These combined influences protected the surface from the direct rays of the sun; hence there was but little chance for rapid evaporation. The result was a thick, slimy ooze, which was kept renewed by each rain during the early summer months. This condition extended over a large portion of this and adjoining States, especially in the valleys formed by the various water courses. We there have, with the addition of heat, the proper condition for decay and the consequent production of noxious gases incident thereto, which gases during the early summer are absorbed by the tender, succulent leaves of the plants and trees. But as the summer advances these leaves become hardened by the heat and continued dryness of the later summer and their power of absorption very much lessened.

Hence, the above mentioned products of decomposition were given off into the atmosphere from an extended surface of country, and the consequent result was a poisonous air. In addition the people, or at least a large portion of them, lived in poorly constructed houses, often built of logs, with the floor resting upon the ground, and were compelled to breathe air tainted with decaying woody matter. And frequently the same apartment was used for the purpose of cooking, eating and sleeping, while the food was often the same article three times a day, viz.: Pork in some form, corn-bread and coffee. It would be hard to name three articles more difficult of digestion. The water was often of poor quality, owing in many cases to shallowness of the wells, and no care being taken to protect them from surface pollution.

From the foregoing statement of the condition of things within a few years past, in which we had an unwholesome atmosphere to breathe, poor and unhealthy homes to live in, indigestible food to eat, and polluted water to drink, is it to be wondered that sickness was rife? It is within my own memory that the sick were more numerous than the well, when the fall sickness was as confidently expected (and the people were rarely disappointed), and prepared for as was the winter fuel and provender provided. These were the influences that made Indiana known as the home of fever and ague, and then one of the drug houses could spring the price of quinine by simply telegraphing an order to the Eastern market for one or two thousand ounces of that staple. This State was also the paradise for the patent medicine men who made liver pills and ague remedies.

Now, this condition has been very materially changed within a few years, by the work of clearing off the timber, the ditching and draining of the swamps

and tile draining of the surface of the country—this, together with the replacing of the cabins with good brick or frame dwellings, with cellars, plastered walls, separate apartments for living, eating and sleeping, an abundance of the best of food, pure air and good water, and to this, also, may be added an improvement in the manner of clothing. It is not many years since the use of woollen underclothing was the exception, while overcoats, especially for children, were almost unknown; now all, both young and old are clad with warm underwear, and in addition a majority are supplied with water-proof garments, which protect them from the dampness.

These have removed the causes from which a great deal of the bilious type of disease was derived.

Again, another effect of the drying of the surface has been to equalize the temperature more nearly of the days and nights.

As the low, swampy morasses did not contain water of sufficient depth to retain an adequate amount of heat to radiate during the night, the consequence was when the heat of the day was past, condensation began almost simultaneously with the setting of the sun, the result being hot days and cold nights. To this latter cause many thinking minds have attributed the so-called malarious disturbance; nevertheless, my mind clings to the former, and as an additional argument in its favor, will cite to you what frequently happens in the spring of the year, especially in our cities, after a severe winter. The remnants of the last year's vegetation with the droppings from domestic animals, together with the usual amount of kitchen refuse that usually finds its way into our streets and alleys, has accumulated during the winter months. This has been held solid, as it were, by the ice and snow, until perhaps the last of March, at which time the sun has reached almost a perpendicular height, and its power is great; the result is, that almost at once this mass of matter begins the process of decomposition under the combined influence of heat and moisture.

You have all observed that this period of the year is fruitful of neuralgia, rheumatism and other diseases that are attributed to a malarious cause, and that this condition lasts until the fresh leaves put forth upon the trees and the green grass appears, when, almost within the space of a week, the major part of the sickness disappears, and then ensues the most healthful portion of the year, the season when the vegetation is fresh, and its absorbing power greatest.

“The blue sky is smiling,
The warm sun beguiling
The spirit of life from the chamber of gloom;
And timid young flowers
In hedges and bowers
Respond to his kisses with fragrance and bloom.”

SWINE PLAGUE OR HOG CHOLERA.

BY J. M. PARTRIDGE, A. M., M. D.

The history of creation teaches that man was the last and best—the crowning work of the Creator, and next to man in reverse order, God created the beasts of the field, and said, “Let man have dominion over them.” Thus by divine appointment these animals became the subjects of his power and the objects of his care. Our earliest knowledge of property among men consisted in cattle, and a man’s wealth was estimated by the number of his flocks and herds. The ancients deified their cattle; the Israelites worshiped a golden calf; and the Orientals of to-day bow in adoration to the sacred ox.

The study of the various forms of animal life has developed the science of zoology, and the whole animal creation has been classified, and each assigned to its proper order, race and species. And so complete is this science that by the knowledge of comparative anatomy, the naturalist is enabled from a single bone to determine the race and species to which the animal belonged, and to tell you the form, size and habits of this animal, and if extinct he will name the geological period to which it belonged. Stock culture or stock-breeding has advanced to the proportions of a science, and not only has there been marked improvements in the general qualities of the herd, but cattle are bred with reference to certain qualities and a fitness for certain purposes. Herefords and Durhams approach to perfection in beef products, as do the Jerseys in the production of milk. Horses are likewise scientifically bred for a purpose, and we have in the Norman draft horses the type of perfection in strength and beauty; and by skillful breeding and training, the fast trotting horse of to-day has become the wonder of the world. The unsightly, lank, long-nosed, slab-sided, bristling, squealing hog of the last century no more compares with the symmetrically rotund and really beautiful swine of to-day, than does the wild grape of the forest compare with the luscious fruit of the vineyard.

The epidemic or contagious diseases of domesticated animals, demand, and are now receiving, much attention from sanitarians and political economists. The subject of this paper has a local interest, as affecting not only a food supply, but it also affects one of the prominent industries of our State.

Swine plague, or hog cholera, undoubtedly appeared in this country as early as 1860. It was not then regarded as a contagious disease, and received no general attention or public notice until fifteen years later, or about 1875. At this time its wide spread proportions and fatally destructive character began to cause great consternation throughout the pork-producing regions of the northwest, as it was estimated that the loss to the producers from this disease amounted to the enormous sum of \$15,000,000 annually. In this emergency Congress appropriated \$10,000, to be placed in the hands of the Commissioner of Agriculture, for the purpose of investigating diseases of domesticated animals. The Commissioner, finding that the loss of swine was greater in numbers and value than that of all other animals combined, wisely determined to expend the greater part of this appropriation for investigations in this direction. He therefore appointed an examiner in each of

the seven States where this disease was most prevalent. Their examinations and reports have done great credit to the authors, and rendered most valuable service to the country. I am indebted to these reports for many statements herewith presented. In comparing the observations made in these several and widely separated localities we are enabled to establish the fact that swine plague, like measles or small-pox, is a disease *sui generis*, having the same characteristic symptoms and pathological appearances in all localities and at all seasons. As cholera or yellow fever prevails most in densely populated districts, or in cities, so this disease has prevailed almost exclusively in the corn and pork producing regions of the north-west, and not on account of any climatic or inherent local causes, but because of abundance of material on which it may be fed and developed. This disease may prevail at any season of the year, and while it is more contagious and fatal in summer, it is by no means exterminated or suppressed by the frosts of winter. A multitude of *post mortem* examinations have revealed, in all cases, essentially the same morbid processes or pathological conditions. The seat of diseases is not restricted to any organ or set of organs, but may be found in the lungs, in the plura, in the heart, in the liver or spleen, in the lymphatic system, in all mucous membranes, especially the intestines. In all cases the lungs and lymphatic glands are affected, as is generally the case with the intestines. The increased temperature of the body is the most constant and unvarying symptom of the disease, the thermometer indicating 104°, 106°, and in one instance 111°. In the widely separate regions in which examinations were made, the following external symptoms were observed and concurrently reported: "Dullness of eyes, lids partly closed with an accumulation of secretion in the corners of the same. There is hanging of the head, with lopped ears, and an inclination to hide in the litter and to lie on the belly and keep quiet. As the disease advances, the animal manifests more or less thirst, some cough, and a pink blush or rose-colored spots, and papular eruption appears on the skin, particularly along the belly, inside of the thighs and fore legs, and about the ears. There is accelerated respiration and circulation, increased action of the flanks in breathing, tucked-up abdomen, arched back, swelling of the vulva in the female as in heat; occasionally, also, of the sheath of the male; loss of appetite, and tenderness of the abdomen, sometimes persistent diarrhoea, but generally obstinate constipation. In some cases large abraded spots are observed at the projecting points of the body, caused by separation and loss of the epidermis. In such cases a slight blow or friction on the skin is sufficient to produce abrasions. Some animals emit a very offensive odor even before death. In large herds, where the disease prevails extensively, this offensive effluvia can be detected for a great distance to windward. In nearly all cases there is weakness or partial paralysis of the posterior extremities, and occasionally this paralysis is so complete in the first stages of the disease as to prevent walking or standing."

As symptoms of special diagnostic value, which are scarcely ever absent in any case, the following are mentioned: "Drooping of the ears and of the head; more or less coughing; dull look of the eyes; staring appearance of the coat of hair; partial or total want of appetite for food; vitiated appetite for excrements; rapid emaciation; great debility; weak and undecided, and frequently staggering gait; great indifference to surroundings; tendency to lie down in a dark corner, and to hide the nose and even the whole head in the bedding; the specific offensive smell, and the peculiar color of the excrements. This last symptom is always present, at least in an advanced stage of the disease, no matter whether constipation or diarrhoea is existing. Among other characteristic symptoms, which are not present in every animal, may be mentioned frequent sneezing; bleeding from the nose; swell-

ing of the eyelids; accumulation of mucus in the inner canthi of the eyes; attempts to vomit, or real vomiting; accelerated and difficult breathing; thumping or spasmodic contraction of the abdominal muscles (flanks), and a peculiar, faint, and hoarse voice in the last stages of the disease."

The duration of the disease may be from one or two days to as many weeks, according to the severity and location of the attack as well as the age and constitution of the patient. Where the attack is violent and located in some vital organ the disease may terminate in a single day; but, in vigorous subjects, with milder attacks, not involving the heart, one or two weeks intervene before death. Young pigs most certainly and surely perish. Convalescence is very slow in cases that do not terminate fatally. Recovery is seldom complete, and these enfeebled constitutions make in development but poor returns for the food consumed. The attack is always most fatal where large numbers of animals are crowded into filthy inclosures. The question as to the contagious or non-contagious character of the disease is fully settled. Numerous carefully conducted experiments have fully demonstrated the fact that it is both contagious and infectious, and that it is not confined to swine alone, but that other animals may contract it in a mild form and transmit it to swine with unmitigated virulence.

Dr. Detmers, in his investigations, appears to have discovered a new order of bacteria, which he named *bacillus suis* as being peculiar to this disease of swine, or, more properly, regards it as the swine plague schizophytæ: for, failing to inoculate healthy animals with virus from which these germs had been removed, he concludes that these schizophytæ are the true seeds of swine plague. These germs, being found in all fluids in the swine, blood and mucous, in the excrements and in all diseased tissues, are regarded as the true infectious principle. The presence of such immense numbers of these germs in the excrements and other morbid products of swine, leads to the conclusion that they are undoubtedly the principal disseminators of the plague. The vitality of these germs in substances undergoing decomposition is soon lost, but in a suitable substance or fluid, like water, containing a slight mixture of organic matter, as in brooks or ponds, their vitality is retained for several weeks.

These germs when dried in the open air retain their vitality for many days. Numerous experiments have been made by inoculating healthy animals with morbid secretions which had been kept in a dry state for five and six, and in one instance for twenty-six days; and in each case the disease was promptly developed. A specimen of dried mucous membrane was preserved for thirty days in dry bran, when it still manifested vitality by developing the disease. Freezing does not impair their vitality. This is proven by experiments with virus which had been frozen for one and two days, and from which the disease was unfailingly developed by inoculation. Two years ago last October an acquaintance of mine in Berrien County, Mich., lost his entire stock of hogs by swine plague. Over two months later, in January, he purchased a fresh and healthy lot of hogs and put them in the pens recently vacated. In a few days the plague reappeared with such malignity that all of these died also. As there was no opportunity for these hogs to have been previously exposed, it is evident that they were infected from virus which had been frozen and preserved for over sixty days. Indeed, if freezing does not destroy these germs it must follow that while frozen they are effectually preserved, since in this condition decomposition is arrested or prevented. On the other hand, warmth, moisture and air are conditions which favor decomposition of organic substances, and are most destructive to these germs.

The stage of colonization or development of these schizophytæ is considered the

period of incubation of the disease, and requires from five to fifteen days, generally about seven days.

The infectious principle from which swine plague is developed, may be introduced into the system by food or drink taken into the stomach, or it may be taken into the circulation directly from external wounds, cuts or abrasions. It is believed that the germs of this disease may be carried through the air for the distance of one or two miles, but that they are harmless if falling on the unabraded surface of the body or on perfectly healthy lung tissues.

All external sores or abrasions constitute a port of entry for the disease, by which it more readily invades the organism than by the stomach. As a preventive measure, therefore, all cuts, sores or abrasions that may be observed should be kept closed by tar or some other substance impervious to air and water. It is probable that the abominable nose-ring, by keeping an abraded surface in a locality that is constantly exposed to any existing contagious influence is a most dangerous cause of disease.

In warm weather, stagnant pools of water breed disease germs and are a fruitful source of danger. The flesh of animals who die of this disease is highly infectious previous to the state of decomposition. Rats and mice contract this disease, and if eaten by hogs transmit the same. Old straw sacks or other porous substances may absorb and retain the disease germs as a source of danger for weeks and months. The dried excretions of diseased animals in ships and freight cars retain these dangerous germs indefinitely.

Cleanliness and care, as to food and drink and all surroundings must be observed. Some authorities recommend, as a preventive measure, the feeding of sulphur, salt or ashes, or that these substances be placed in the reach of swine.

This plague seems to produce in those animals which recover from it, comparative immunity against subsequent attacks, and in those exceptional cases where the disease has appeared a second or third time, each subsequent attack has exhibited much less severity. These facts led to the presumption that inoculation, with modified virus, would render valuable service, at least, in reducing the severity of the attack. Experiments in this direction have proven at least partially successful. Great difficulty is experienced in procuring a virus of sufficient virulence to give general success in developing the characteristics of the disease, without in some instances developing the fatal malady. Inoculation as a preventive measure is, in its present state of development, impracticable. It is further believed that such effort at prevention, instead of finally suppressing the disease, would tend, rather, to foster and perpetuate the same.

As a preventive, the use of carbolic acid seems the most practical, scientific and successful means yet proposed. Its manner of administration and use comes within the reach and comprehension of the masses. Its success is indisputable. All animals treated with this remedy for two or three weeks derived perfect immunity from the plague by inoculation or infection. It is not claimed that it is a curative remedy when the disease has developed organic changes in the organism, but it must preoccupy the system and intercept the disease. The dose recommended is ten drops to each one hundred pounds weight of the animal, to be given three times a day. A solution of this acid should be freely sprinkled about the premises.

But finally a system of vigorous pruning is indispensable. Remove or destroy the sick, separate the healthy into small herds and remove them to fresh pastures. Then give them the carbolic acid treatment and they will live.

A READY METHOD OF DETERMINING THE HEALTHFULNESS OF DRINKING WATER.

BY JOSEPH G. ROGERS, M. D.

The importance of a ready method of determining the purity of water used for drinking purposes needs no argumentative support. The methods of the analytical chemist are not applicable usually, even by the medical man, on account of lack of apparatus and special skill. The following simple process may be used by any one of ordinary intelligence :

The potability of water bears no relation, as a rule, to the amount of mineral matter which it may contain unless this be very excessive. Its healthfulness depends on the absence of organic matter in solution or suspension. Water *may* contain a large amount of organic matter and still be drank with impunity ; but, on the other hand, all constituents of a morbid sort *are organic in their constitution*, and therefore all water containing any considerable quantity of organized matter is to be suspected and avoided if possible. Limpidity is no criterion. The clearest water may be the vehicle of the most fatal disease germs.

The requisites for the rough analysis referred to are: Two one-ounce vials, thoroughly cleansed with *hot* water and supplied with smooth corks; a dropping tube which will drop a minim, obtainable of any druggist. In one vial dissolve a grain of permanganate of potash in an ounce of distilled water; fill the other vial with the suspected water. To the latter, by means of the drop tube, add one minim of the permanganate solution. Let it stand quietly and without agitation. Any present organic matter will decompose the chemical, and in so doing will fade out its deep red color. If the water becomes entirely colorless, add another minim and await a second clearance of all color. Should this occur, proceed as before until the slight color will stand permanently. This effect indicates a decomposition of the organic matter contained in the water.

A sample of water which will decompose two minims of the permanganate solution is unfit for use. Perfectly pure water will hold the added color (a single minim) indefinitely if kept stopped and in a dark place.

DIPHTHERIA.

J. M'LEAN MOULDER, M. D.

E. S. ELDER, M. D.:

Dear Doctor—You will please find herewith a report of the cases of diphtheria that have occurred in Howard county during the year that has just passed.

Howard county is a grand oasis in the great Sahara, it being comparatively free from contagious or epidemic diseases, and this one in particular. Many years have elapsed since Howard county was overrun by an epidemic of diphtheria, and yet Drs. Armstrong, Scott, Johnson and others, who practiced medicine in this county in its earliest days, tell us of an epidemic of this character that occurred about twenty years ago, that proved very fatal and patients died daily from this most loathsome disease.

This is one of the earliest epidemic diseases described in medical literature, dating back even to the days of Homer and Hippocrates, and yet their knowledge, though enlightened by the brightest minds for over eighteen hundred years, falls far short of solving many of the mysteries of this disease or giving the student of pathology comfort.

Ortell may talk and write fluently about his important discoveries with that all important instrument, the microscope; he may talk and write learnedly about the *bacteria*, *micro-cocci*, *micro-bacteria*, *spherical-bacteria*, etc., playing such a conspicuous part in this loathsome disease, and yet that only adds to our discomfort and mystifies when we are called to the bedside of an unfortunate victim of this malady.

Two things, however, we are satisfied with; one is that the disease can be communicated from one individual to another, and the other is, that where proper care and caution is taken to isolate the cases, and disinfectants properly used, an epidemic that threatens destruction on every hand may be confined to the sick room or a single case. This much at least has been learned by the researches of our medical fathers, and let all honor be given to *them*, for this important step in saving human life.

The hygienic surroundings of every case ought to be the careful study of every physician, and no case of diphtheria ought to pass without the strictest regard for known hygienic laws.

The patient thus afflicted should be placed in a room entirely apart from other members of the family, and should not be seen or visited by any one save by the attending physician and nurse, and they should not immediately mingle with others until their clothing has been thoroughly disinfected or changed.

In selecting an apartment for the unfortunate subject of this grave malady must be done with care and judgment. A large, well-ventilated room, facing the south, plastered and in the second story, is best suited for such cases.

No bedding or clothing save that which is absolutely essential for the comfort of the patient should be permitted in the sick room. The bedding and clothes used in the sick chamber should not be removed until they have been thoroughly disinfected with a fluid already prepared for that purpose.

What antiseptics are best adapted to destroy the poisonous germs lodged in the meshes of clothing or vessels has been the study of the best minds for years, and yet to this time nothing has been discovered that will nearer meet the demands than carbolic acid, sul. zinc and sulphur. Ten ounces of sul. zinc, two ounces of carbolic acid, to four gallons of water will form a solution of sufficient strength for all practical purposes, and should always be kept in readiness in and around the sick chamber.

I often recommend that a sponge saturated with this fluid be suspended within the sick room and halls that the rooms may be permeated with this disinfectant. The night vessels as well as the water-closet and privy vaults should be disinfected with this or some other antiseptic fluid.

After the patient is well or convalescing great care then must be observed with reference to the bedding. See that it is thoroughly disinfected or buried. The plastered walls may now be whitewashed, the wood work and floor thoroughly cleansed and fumigated with sulphur, and the room should remain idle for at least seven to fourteen days.

If such measures of prevention as I have hinted at above be carried out, under the direction of an intelligent physician and nurse, no doubt need arise in the mind of any one that diphtheria; or in fact any contagious or epidemic disease, will spread to any alarming extent, and with the light of sanitary science that is gradually crowding in upon us, I am led to believe the child is born who will live to see the day when these diseases can be limited and controlled with impunity.

J. McLEAN MOULDER,
Secretary Howard County Board of Health.

KOKOMO, IND., November 28, 1883.

SYPHILIS—ITS PROPHYLAXIS.

WM. LOMAX, M. D.

The voluminous library of medical literature furnishes but few specialties of a more extended bibliography than that of syphilis, the subject assigned the writer from which to supply a contribution to the annual report of the State Board of Health. And but few have been more prolific of adverse opinions and animated discussions.

In times past a fierce war of opposing theories enlivened the reconnoissance of this domain in a marked manner.

The zeal with which conflicting opinions upon the subject were advocated and criticized by the ambitious disputants has had the effect of bringing out every phenomenon connected with this protean disease in all its varying manifestations. Every opinion has been made to pass the ordeal of an unsparing scientific sifting.

In the long list of human maladies investigation has never been more thorough and exhaustive than in this particular field. Favorite views and theories have had the strongest support the professional ability of their advocates could give; and, in their turn, have been assailed by the most severe crucial tests which observers of equal ability but of contrary opinions could produce to overturn them.

The natural history, pathology, morbid anatomy, mode of propagation, complications, therapeutics and every possible phase of the disease have, in this professional controversy, been so fully elucidated as to end the debate in a fair unanimity of the medical mind upon all the minutiae pertaining to this class of affections. As investigation has developed a more thorough knowledge of the far-reaching power of syphilis to undermine the vital forces and ultimately to destroy life, its dire influence upon the health and well-being of society can not be ignored. The observations of writers upon the history, habits and wide prevalence of the disease present a melancholy picture of wretchedness and misery for the meditative mind to contemplate. In the more grave forms of the disease every tissue in the body becomes tainted with its virus. Dr. Gross,* in an able and painstaking paper on this disease, says, "if left to itself syphilis never wears itself out." He has repeatedly witnessed cases in which the poison remained in a state of latency for ten, twenty, thirty and even forty years, the individual being apparently perfectly well all the time, when either suddenly or gradually, from some intercurrent disease or accident, it broke out in some particular structure, tissue, or organ of the body.

Dr. Sturgis regards syphilis as being essentially a chronic disease, liable to affect every tissue in the body: "Its later manifestations often appear so long after the early symptoms as to cause its connections with many diseases to be overlooked.

*Transactions American Medical Association, 1874.—Address on Surgery.

Thus grave affections of various organs of the body, serious lesions of the nervous system, and other viscera, having their origin in a former syphilitic condition, are not observed because the patient is ignorant of the connection between them. And yet these are sufficient to incapacitate men for work, to blast their lives, and make them dependent upon the charity of friends or strangers, without affording them the miserable gratification of release by death."

Notwithstanding the distinctive marks by which the disease is characterized, and its wide prevalence in all communities, it is remarkable how little is known to the public of its real existence in their midst. Being intimately associated in the popular mind with a low grade of moral habits, an obliging disposition pervading refined society evades as much as possible the fancied rudeness of direct reference to the disease. And being inhibited, as by common agreement, from conversational topics in cultivated society, its real condition and character are liable to be obscured by the vicarious substitution of the less offensive term *scrofula*, which may be discussed in social circles without any allusion to the special circumstances of its origin.

But there are departments essential to all civilizations where the tinsel of sentimentalism fails to hide the monstrous depravity. It is necessary to the efficiency of certain public interests that the true physical condition or capacity of endurance be known, in order to estimate their ability to meet and successfully overcome emergencies that may arise in the course of their service. Hence army and navy enlistments bring the physical organism to the test of scientific scrutiny. The drapery that may conceal a contaminated figure and swindle an unsuspecting bidder in the matrimonial market is powerless to palm off the valetudinarian trash for sterling merchandise in the searching inspections of army and navy recruits.

The results of these examinations may serve to give some idea of the prevalence of this corrupting disease in the community. Official returns in Great Britain and America show that forty in every thousand applicants for enlistment have been found disqualified for service by venereal diseases before being subject to the demoralizing influences of military and naval careers, while the absolute extent of contamination of the community by venereal diseases can not be ascertained by any methods which investigators have heretofore adopted. "The reports of military and naval establishments of the United States and European nations, and of civil, charitable and penal institutions and hospitals, enable a proximate estimate of the distribution of these diseases among the whole population to be arrived at.

"The official reports* show a general average of one among every seven American, British, German, Austrian and Italian soldiers who was incapacitated for duty during the year 1881 by diseases recorded as venereal."

"During† our late war, within a period of about two years, from 1861 to 1863, nearly twenty-three thousand cases of the disease occurred among our troops. In the French army in 1862 there were, in that single year, ten thousand cases out of an active force of three hundred thousand men, and, in the British Service, during the same period, the proportion of cases was still greater. Of its extraordinary prevalence in London some idea may be formed from the number of cases met with at its principal hospitals, dispensaries and other charitable institutions. Thus, of six thousand out-door surgical patients annually treated at St. Bartholomew's Hospital nearly one-half are said to labor under some form or other of these

† Gross. Loc. cit.

* Gihon. Transactions American Pub. Health Association; vol. viii.

affections. At Guy's twenty-five thousand of a similar character are annually prescribed for; while at the Royal Free Hospital they amount to the frightful number of forty-two thousand seven hundred and five or one hundred and seventeen cases on an average daily. At King's College, St. Mary's, Westminster, Middlesex and St. George's Hospitals the number of cases varies from twenty to thirty-three per cent. of all the surgical out-door patients daily seen at these institutions. At Seaman's Hospital, Dreadnaught, the number of cases daily treated is about fifty; at Lock upwards of two hundred daily; at St. Thomas' one-half of the out-patients are similarly affected.

"Of 100 eye patients applying weekly for relief at St. George's, 30 per cent. are syphilitic; and at the Ophthalmic Hospital, Moorfields, the largest eye infirmary in London, if not in the world, Mr. Hutchinson estimates the number of syphilitic cases at 20 per cent. At the hospital for throat diseases the number of syphilitic cases is about 15 per cent., and in the various metropolitan charities for skin diseases the cases are about one-eighth to four-fifths of the entire number.

"The inhabitants of the islands of the Pacific and many of the Indian tribes of North America and South America are rapidly disappearing under the effects of this disease. The mortality from syphilis on these islands is absolutely appalling. Dr. John G. Brooks, writing in 1873, affirms that the spread of this disease has been so rapid, and its consequences so fatal, that in less than a century the population has been reduced nearly 75 per cent."

Dr. Sturgis* estimated that in a population of 942,292 persons in New York City, in 1873, 50,450 were suffering from syphilis. He believes the estimate to be under rather than over the true amount of the disease. The figures of M. Lecour in 1870 give 48,980 cases in Paris in a population of two millions of people.

The foregoing figures and facts, drawn from authentic sources in foreign countries and different portions of our own, are valuable in presenting accuracy of statement as to the real existence of the disease at the points where the reports were made. Of course many cases in private life and private practice would not be reached by the methods which have furnished these official reports.

But it is not necessary to wander out of our own State for evidences of the deplorable prevalence of syphilis. Physicians' records are full of them. Our county poor houses and pauper practices all over the State literally reek with the filthy scourge. There are probably not less than one thousand persons of this description reduced to pauperism by this disease and supported at public expense in this State, while at least twice as many more occupy a half-way place upon the physician's roll between the poor house and the rambling dude, mortgaging the pitiful penitence of a tortured and frightened rake for the professional services of the physician.

The mortality in young children from this disease is very great. "In 1871† the percentage of deaths in children under five years of age in London was 89; in New York, 84; in Philadelphia, the same year, 63." This appalling slaughter of the innocents is too horrible to contemplate without the most sickening emotions of sorrow, sadness and shame. But of its truthfulness the facts which have been carefully collected will not permit us to doubt. All physicians of experience have witnessed the blighting mildew of this loathsome disease upon new-born babes, but from considerations of prudence have veiled the fact with the patronizing mercy of their silence. I have known two families in which nine children—four in one and

*Sturgis. Loc. cit.

†Sturgis. Ziemssen's Cyclopædia, vol. xix, p. 540.

five in the other—died from congenital syphilis, entailed in violation of the moral code by their parents. The few children surviving the critical period of infancy only live with a large reduction of the normal comforts and pleasures of health. They are the victims of glandular enlargements, nodes, nervous disorders, deep-seated affections of the eyes and a great variety of organic lesions, requiring a constant restraint upon the liberties of sound health to enable their degenerate systems to resist the heterotrophic forces mingled in the very fountains of life by the libidinous vices of their parents. The children of syphilitic parents are especially liable to scrofula, consumption, rickets, and many other fatal maladies essentially dependent upon deficient energy of the vital forces. This relation of children to parents in the matter of hereditary constitutional disease has been so uniformly verified by professional observation as to establish the fact beyond controversy that these diseases are the legitimate progeny of an antecedent syphilis, either proximate or remote. After this contamination has been transmitted to the blood and incorporated into the vital susceptibilities of the offspring, it becomes a hereditary vice of constitution, making life a period of greater uncertainty, burdened with premature weakness and misery, and an early death a more than probable terminus.

Taking then a fair and rational survey of this affection as an element of vast and varied powers of deteriorating health, not only in its direct action, but also in its more remote morbid consequences, we are compelled to acknowledge it to be a scourge of no circumscribed area or limited potency for evil. With a full and lucid panorama of the destructive character of the disease before his mind, the venerable and honored Professor Gross* exclaimed, "Here is a disease a thousand times worse than the most deadly epidemic; doing its work slowly, and, as it were, in disguise and darkness, ruining entire families, destroying many of the best men and women, and laying the foundation of untold misery, wretchedness and woe; not infrequently extending through several generations, and literally poisoning the very foundations of life. It exists in many of the best and noblest families of the land. It is poisoning and slowly, but surely, undermining the very foundations of life in every direction, sowing the seeds of death among our people and gradually deteriorating the national health."

The late lamented Dr. Sims remarked:† "So far as the well-being of the human race is concerned, I look upon the subject of syphilis as the great question of the day. A greater scourge than yellow fever, cholera and small-pox combined, is quietly installed in our midst, sapping the foundations of society, poisoning the sources of life, rendering existence miserable, and deteriorating the whole human family." Dr. Ricord, a devoted student and the highest authority in all matters relating to the entire subject of the disease, denominates it "the greatest plague that menaces civilization."

Prostitution is usually the hot-bed in which this distemper is propagated. A knowledge of this ordinary source naturally leads the mind to associate lewdness as an essential element of its etiology wherever it may be known to exist; but this is by no means invariably true. The disease in its direst form may be cruelly communicated to the purest personal virtue and unsuspecting innocence with the greatest imaginable facility. The use of drinking vessels, table utensils, or any object upon which the saliva of a person having a syphilitic ulcer in the mouth may have been imbued, a towel used by one having syphilitic sore eyes, even a kiss from a diseased person, are sufficient to convey the disease to a healthy individual.

*Gross. Loc. cit.

† President's Address, A. M. A., 1876; vol. xxvii.

Medical literature* teems with such cases. A case is given where a healthy-looking young man obtained a situation in a glass factory. In a few weeks a dozen or more of the glass-blowers had syphilis, and were unable to tell where they got it, until the attending physician traced it to the new-comer, who was found to have a syphilitic ulcer in the mouth.

Dr. Maury,† of Philadelphia, gives an incident of a tramp infecting a number of persons, as he went through country villages, by tattooing them, wetting his material and the needle used with his saliva; having an ulcer in his mouth he gave syphilis to many of his patrons.

This repulsive theme might be extended indefinitely by the rehearsal of sad tales of woe and ruined health, of well-verified instances in which untold misery and blighted hopes were entailed, where respectability, opulence, social position and domestic happiness were the natural and reasonable anticipations and social rights of an inveigled, confiding victim. But the melancholy prevalence of a widespread corruption of blood in the constitutions of the race, steadily multiplying the ills and miseries of human life, and in an inverse ratio curtailing the comforts, health and usefulness of the human family, is too painfully evident to require further details.

The formidable nature and universal diffusion of this plague impresses every thoughtful mind with the necessity for some efficient measures of arresting the retrograde trend it has given the vital currents of the whole population.

Sound physical constitutions of the individual members are the surest guarantees of strength, prosperity and permanence a nation or a people can possess. Anything tending to vitiate these conditions is calculated to weaken the whole social fabric and undermine the best interests of civilization, and calls on the highest motives of humanity and philanthropy with an emphasis commensurate with the interests which are jeopardized, to utilize every influence within its power to avert and arrest the pestilence that "walketh in darkness and wasteth at noon-day." Faithful to the responsibilities incumbent upon conservators of the public health, physicians have not been slow to warn the community against this, the most deadly poison that ever infected the blood, and which is destroying more lives in its multiplied forms than any other disease. Definite measures have been formulated and brought forward from time to time, which their projectors hoped would meet the desideratum; but so far the genius of philanthropy has not been able to surmount popular opposition by any municipal remedy yet devised. The evil, being an outgrowth of prostitution, has led many to look to some legal regulation of that vice as the most promising means of checking and eradicating the disease. But those who advocate legal interposition are not agreed among themselves as to the measures best suited to accomplish the desired result. A portion of these take the position that prostitution is a vice coeval with human history, and will continue to the end of time, that it should be recognized as a trade or avocation, and licensed the same as traffic in ardent spirits. They would have the brothel under the control of the municipal authority, the cyprians to be regularly inspected by competent physicians to determine whether any have been struck by the dominating disease, and send such as have it to the hospital for treatment, where they are to remain until cured, and to certify to the purity and safety of intercourse with those not diseased. It is their theory that the judicious government of these institutions would not only protect their patrons against the infection, but would ulti-

* Sims. Loc. cit.

† Ziemssen's Cyclopædia, vol. xix, page, 540.

mately enable the licensed houses to starve out clandestine prostitution by monopolizing the business. And clandestine prostitution is believed, by those having the best opportunities of correct information on the subject, to be the most fruitful *nidus* from which this virulent plague is disseminated. Wherever the ruling authorities have exercised a supervision of a kind that directs attention to the essentials of health, Baumler* says, it has had the most favorable influence in diminishing the prevalence of the disease. "This has been seen in Belgium and England, where quite recently a supervision and examination of the notorious prostitutes of the garrison towns had been practiced, and where the condition of the troops had been much improved. A parliamentary commission reported that in 1871, where the regulation had been enforced, the number of soldiers that had been affected with venereal diseases in one thousand had diminished from one hundred and twenty to fifty-four during the period from 1865 to 1870."

A part of those opposed to licensing prostitution, but who favor legislation, believe that to confer upon Boards of Health the power to deal with syphilis which they now have over small-pox, yellow fever and other contagious diseases dangerous to the health of the people, would be sufficient. This, they claim, if properly exercised, would be ample power "to stamp out the disease," and would be as far as they would desire legislation to go. The draft of a bill was submitted to the National Public Health Association at Indianapolis a year ago providing that any person who should knowingly communicate the disease, or be instrumental in communicating it, should be punished with six months' imprisonment, requiring the owner, agent or occupant of a house, knowing a diseased person to be located in the same, to give information of such fact to the proper health officer, under a penalty of five hundred dollars or six months imprisonment or both; and giving Boards of Health suitable power to institute and carry into effect measures to prevent the spread of the disease, and, if deemed advisable, to remove to proper hospitals all persons suffering from such diseases who imperil the health of a community.

Much painstaking labor had been given an extended investigation of the subject by an able and competent committee, of which Dr. Gihon was chairman. The bill was simple, clear and brief, encumbered with as few conditions as any measure of legal force could be. The committee proposed that the association recommend the State and Territorial Legislatures to adopt it; but the association, by a decided majority, refused to take any action whatever in the matter.

The only attempt made by civil authority in this country to control prostitution probably was that of St. Louis a few years ago. But it awakened such a tumult of excitement among the citizens as to lead to the repeal of the ordinance before its value as a remedial measure for suppressing the vice and eradicating the disease could be tested. Some thought beneficial results were perceivable from its operation, while others looked upon it as an outrage upon the moral character of their city, regarding it as an attempt to popularize the crime of prostitution in their midst by a fictitious committal of the public approbation where the true sentiment of the people ignored the measure with an unmitigated condemnation. An attempt to regulate prostitution in the city of Nashville was made by our army authorities during the late war. Some of our officers, whose commands were quartered in Alabama, visited the city while the order was in force. It was a new and unheard of thing to them, and created no little surprise to learn that under the terrible strain with which the Government was burdened by the Rebellion it would

* Ziemssen's Cyclopædia, vol. iii, page 267.

assume the business of running houses of prostitution. They brought with them official certificates from surgeons of the army declaring the women who held them were free from contagious diseases, making it safe for patrons to cohabit with them. While they indulged in witty comments upon the ridiculous absurdity by which the dignity of the Government had been marred by this branch of the Army of the Cumberland, they congratulated themselves upon the safety it gave a little episode of licentiousness. In due course of time, however, these merry critics were cursing the prostitution arm of the service at Nashville for setting a trap into which they had fearlessly ventured, and were caught.

This pioneer stroke of military civilization is the only authoritative attempt to control the vice which has fallen under my observation. The circumstances under which the experiment was made were not such as to give the measure a fair trial. Some of the surgeons who were more directly concerned in the execution of the order, and had better opportunities for knowing its results, thought, as far as developed, they were salutary. What I saw of its operation was not calculated to recommend the remedy.

No radical departure in this direction can be enforced against the moral conviction of the masses, and it is clearly evident that the sentiment of our people is not prepared to tolerate any measure having the least semblance of approval of the blighting moral leprosy, as an avocation, among them; but the fact that a deadly poison has found its way into the blood of the people and is multiplying their miseries in every direction, enfeebling their vital powers and curtailing their lives; that it is transmitted in the very function by which the species is propagated and continued, should arouse every philanthropic energy to abate, arrest and eradicate the infection from the fountains and sources of life.

The most sacred interests of society call loudly for some efficient measures of correcting this unfortunate condition. It should not appear unreasonable to suppose that with us, from the character of our political institutions and training in matters of statesmanship which an exercise of the elective franchise gives to every voter, some barriers to the vice and its concomitant corruption of the citizens of the republic should find its way into the formula of a legal statute. In view of the magnitude of the evil, the calm, deliberative wisdom of an intelligent and virtuous people should grasp the necessities of the situation, and, in a sensible, business-like manner, apply such remedies as, in their judgment might be best suited to preserve the public health; and when such judicious regulations shall have received the sanction of law, all differences and antagonisms of policy should cease, and the united moral sentiment of the entire community should be given the executive officers to enforce the law; but the apathy which at the present day stupefies the mind and conscience of community in regard to legal interposition as a remedy for this curse, is so unpromising of early beneficial results as almost to preclude it from the prophylactic programme of sanitarians. And yet the popular will is so spasmodic in its evolutions and tergiversations, and so plastic in its capabilities, as possibly to bring the benign opportunity within the range of practical accomplishment in an unexpectedly brief period of time. At all events the subject should be constantly paraded before the public gaze, and its importance pressed upon the attention of the people until it receives due consideration at their hands.

As has already been said and is universally known, the great source of this morbid condition is sexual intercourse. Its inherent character and social relations present a complicated subject for the manipulations of social science. Sexual intercourse is a joint act, in which both sexes, male and female, participate. The

propensity impelling it is mutual, implanted in the nature of both sexes. It subserves an indispensable necessity of the animal economy, that of reproducing and perpetuating the species. A function so important to the well-being of the race has not been left to the uncertainty of reason, the weakness of moral principle, or any of the ruling motives of commercial life, even in man, the highest type of God's created beings. It has been wisely committed to an internal venereal sense or propensity of absolute and irresistible power of impelling its gratification. The production of offspring being the legitimate object and physiological result of the sexual functions, imposes an obligation to provide for the maintenance of the children produced by its gratification. The law-making authorities recognize parental obligations by incorporating them into the civil codes. But lust, unwilling to discharge the responsibilities of its indulgence, meanly seeks to shirk them and allows the *onus* to fall upon its weaker and ruined victim. The record of horrible murders resorted to by these heartless brutes to evade the paltry expenses of their lewdness, reported in the daily papers, is enough to curdle the blood to read them. Prostitution, with an affected humanity, here steps in and proposes to dispense with all occasion for these fearful crimes by supplying the demands of lust without the collateral risks of financial embarrassment being incurred.

In the present unsettled state of the law-making mind no statutory remedy can be expected, but while the measures or propositions thrown out for the public consideration are in an amorphous or transition state, all parties can agree in magnifying the virtue of chastity as a prophylactic of no uncertain power. Were the maxims of this virtue incorporated into the lives and habits of the people, and faithfully practiced, the disease would die out. It is the failure to observe the requirements of this virtue, with the deleterious consequences of its violation, that creates a necessity for the municipal regulation. In canvassing this subject it should not be forgotten that marriage and prostitution, as widely different in moral qualities as they may be, are nevertheless both traceable to the same propensity or prompting force in the compound of animal life which passionately desires connection with the opposite sex.

The antagonism of the two consists in the different motives by which indulgence is prompted. The lecher is prompted by lust. When that is gratified he is purposeless. The law holding him responsible for the results of his indulgence is wholly opposed to his will. He regards it as a hardship. He is devoid of moral feeling, and would blight and murder the unborn child of his lust to escape the expense of maintaining it, or cruelly murder the mother of his illicit offspring to get rid of both. It begins and ends in the gratification of the venereal appetite. To the prostitute a livelihood is added to the motives that prompt the lecher. There is nothing above the low instinct of the brute connected with it, except the artifice and craft of the knave to evade pecuniary consequences. Not so with marriage. It inaugurates a new sphere of social life, stimulating the noblest emotions of which the soul is susceptible. It is an endless chain of developing pleasures and moral enjoyments unapproachable by any other avenue. It opens the family home, a miniature paradise of social happiness, in which mutual confidence, affection, sympathy and interest combine to prompt an infinity of generous services of kindness, benevolence and duty, compensatory, not alone in the direct comfort and happiness of the loved ones upon whom they are so bountifully lavished, but scarcely less so in the reflex gratification afforded the faithful donors by whom they were so liberally bestowed. This is a domain of love in which the exchange of kind offices is spontaneous and mutual. Domestic felicity and quiet peace rule supreme. The normal influences of a well-ordered family circle prompt to noble

deeds, and elevated thought, and honorable purposes of life. Laudable enterprise, toiling industry, the care and labor of producing the supplies of subsistence, the comfort and luxury of the home naturally crop out, and are made enjoyable by the underlying affection that inspires their performance. There is no other condition of society contributing so much to the success of civilization as that of well-regulated, happy families. And this condition results from an amorous element of nature in every individual, demanding marriage as an opportunity for its legal indulgence, resulting in the physiological products for which the instinct was provided, and the parties adapting themselves to the contingencies which follow the connection; and the wisest regulations the political economy of the civilized world, through the lapse of past centuries, has been able to devise, has culminated in the family home.

Marriage should be encouraged as an institution of the greatest value to individual happiness and the public weal. The sanctity of its relations should be inviolable. The purity of the family organization should be maintained by the strong arm of the law. The social vices which revel in licentiousness not only blast the peace and happiness of families but are liable to corrupt the blood with those infectious diseases which entail feeble constitutions upon the offspring for successive generations. Sexual vices, etc., being the prime source from which the dominating disease is spread, the promoters of public morals and of public health should cordially join hands in all measures tending to diminish their prevalence and pernicious consequences upon the lives of the people. The law already existing upon our statute books for the suppression of these crimes should be vigorously enforced, until the mature thought of moralists and sanitarians may formulate more efficient regulations that will enlist popular favor and command municipal authority to enforce them.

CEREBRO SPINAL MENINGITIS.

S. H. PEARSE, M. D.

We are called upon sometimes to meet epidemics of this disease, and what the particular poison is that produces it we do not know, but that it occurs, and we as medical practitioners have it to contend with, being a fact, it is our duty to be prepared to treat it manfully. The appearance of the disease in widely separated localities at the same time, its isolation at certain times, and its sudden diffusion again, is calculated to baffle the best of medical experts as to the cause of the disease.

Whether it is contagious or infectious we shall not stop to consider. The onset of the disease is so different on patients in the same locality as to cause the most close observer to make a mistake in his diagnosis at his first visit, but as a general thing it is ushered in by a chill, with severe pain in the head and back, something like other eruptive diseases. The course is usually well marked after the fever makes its appearance, the muscles of the neck become rigid, and he complains of pain in every movement of the head. Now, in the majority of cases this increases rapidly and it will not be long before, if you place the hand under

the back of the head, you could raise the whole body. The lesion is evidently at the base of the brain. We sometimes see sporadic cases that will go through with all the stages and recover, but they are the exception. In the epidemics that we have witnessed the tendency has been to death from the onset.

We have seen many cases where the eruption would show itself within two hours after the chill, and was as though blood had been sprinkled over the whole surface of the body.

In this locality it has always prevailed as an epidemic in winter, and our most severe ones have been when the winters were open or wet.

The young are far more liable to it than those more advanced in life. I should say that fully three-fourths of the cases were under twenty years of age, although no age is exempt from it. One peculiar feature in this is that in many cases metastatic change takes place in a short time, the brain becomes clear and the lungs are attacked, and sometimes a joint will become effected, as, for instance, the knee. And again many cases of pneumonia, when the epidemic is prevailing, we have watched with the utmost diligence for a change from the lungs to the brain. There is but a step from one to the other, and many times have we seen this to our sorrow. Sometimes it assumes a distinct intermittent form, and such cases are very deceptive, as during the intermission we may entertain a ray of hope, when really there is none. The fever does not generally run to a high temperature, hardly ever more than 103° , and rarely more than 101° or 102° . The physician in attending patients with this disease has very little satisfaction, as he is never sure when he leaves that they will live until his next visit. He should always be guarded in all his declarations, for the friends are anxious and asking questions, so he must be on the alert.

The diagnosis of this disease is comparatively easy. One who has read a description of the disease and has never seen it, can hardly mistake it, unless it be a very mild one, where the system is not wholly under the influence of the poison. Nearly always the symptoms are so marked that it is easily recognized, and could not be taken for anything else, unless it be a pernicious chill.

TREATMENT.

The treatment of Cerebro Spinal Meningitis has been as various as there have been epidemics. Many years ago bleeding and the antiphlogistic treatment had a thorough trial, and nearly all died; then calomel, opium and quinine, and some recovered, and then we tried it again, and it failed. Then ergot was recommended, but it shared the same fate. In the last epidemic here we used calomel freely, and kept them quiet by the hypodermic use of morphia, even with young children, in suitable doses, followed by the use of quinia as soon as practicable, and good nourishing diet.

We might mention many other things that are used, but I will not trespass upon your space. It is understood always that cold applications to the head and spine are in order.

DISEASE GERMS.

BY J. W. COMPTON, M. D., EVANSVILLE, IND.

In compliance with that part of Section 2 of the law creating a State Board of Health, which says, that among other duties of its members, they shall, prior to the 15th day of November of each year, make a report to the Governor, of their doings, investigations and discoveries during the year ending on the 31st of October, I have the honor to report that I have been endeavoring to investigate the subject of disease germs—minute organisms which invade, make their habitat and multiply in the human organism, and by propogation and multiplication in the human body, by their actual existence in, and influence upon the tissues of the body, create many diseases which the profession and the people have contented themselves by ascribing to vague causes, such as "cold," "epidemic influence," and "impurities of the blood." There is no longer a reasonable excuse for ascribing to such obscurities the origin of diseases so undeviating and uniform in their distinguishing features—always the same, always characterized by well marked consecutive stages of incipency, development and decline; each separate disease strictly maintaining its own peculiar characteristics throughout all ages; no case of measles was ever contracted from scarlet fever, no case of whooping cough from mumps, nor small-pox from any other disease than small-pox. Hence, we must rationally infer that all diseases have their own peculiar causes, and that these causes, to withstand all climatic changes, all ages and seasons must have an identity, a life of their own, as much as a grain of corn, a bird or a bear. They all produce and reproduce after their kind; a grain of wheat will produce a stalk of wheat. This being true of the vegetable kingdom, it is equally true that animals produce their own kind, and not another. The identity and peculiarities of many of the disease germs are no longer left to conjecture. With the aid of the microscope they are not only visible, but with the progressive improvements of instruments and improved coloring materials, their shape, size and peculiarities of organization can be seen and discussed as we do those of the mosquito, or the whole family of insects and animals. They are found to assume different shapes, and have received different names accordingly, the rod shape being termed bacilli, those of granular form micrococci, while the screw shape are called spirilla. Their power of multiplication is simply wonderful. Dr. Gradle says of bacteria: "In a suitable soil each bacterium grows and divides into two young bacteria, it may be within less than an hour, which progeny continue the work of their ancestors. At this rate a single germ, if not stinted for food, can produce over fifteen millions of its kind within twenty-four hours. More astounding even seems the calculation that one microscopic being, some forty billions of which can not weigh over one grain, might grow to the terrific mass of eight hundred tons within three days, were there but room and food for this growth."

The bacteria of putrification should not be confounded with as identical to germs of disease, for each parasitic disease is due to a separate species of bacteria, characteristic of the disease, producing this particular disease and no other.

A consummation greatly to be desired in the treatment of parasitic diseases is to discover a specific destructive influence upon the parasites, and yet harmless to the tissues occupied by them. Most chemical antiseptics destructive to the parasitic life are injurious to the health of the body when given in sufficiently concentrated form to destroy the life of insects which have made their homes and taken refuge within the tissues of the human body.

Antiseptic remedies are imperatively demanded in all forms of zymotic diseases usually acknowledged to be caused and aggravated by an accumulation of disease germs multiplying in the body. A particular formula of antiseptic treatment may be successful in destroying the bacteria or germs of one or more diseases, and yet be nugatory in the treatment of others. Carbolic acid and sulphite of soda will destroy many of the germs of small-pox, and manifest no destructive influence on the germs of yellow fever.

Nearly twenty years ago a physician residing in one of the Southern States announced, through the Philadelphia Medical and Surgical Reporter, that he had been treating small-pox with carbolic acid and sulphite of soda internally administered; that the treatment almost aborted the disease, by preventing pitting, and so arresting the eruption in the vesicular stage that the disagreeable results of the suppurative stage and secondary fever were so nearly prevented as to greatly lessen the suffering, and remove much of the dread usually experienced by those having this terrible disease.

After summing up his experience, he concluded by saying that the only objection that could be found to the treatment was that it so completely destroyed the germs of small-pox and eliminated the poison from the system, that the persons receiving the benefit of this antiseptic treatment were liable to contract the disease again, should they afterwards be exposed to its contagion.

Taking the risk of future attacks, I have administered this remedy in the treatment of all cases of small-pox that have fallen under my care, either in hospitals or private practice, and have had every reason to be satisfied with the treatment, finding it to arrest the disease in the vesicular stage, causing the lymph to dry up, and desquamation to take place by the falling off of thin scales without supuration, except in a very slight degree.

Admitting these remedies to have a destructive influence on the germs of small-pox (we know that quinine is destructive to the germs which produce malaria), may not we hope that the number of germicides may increase until all diseases are under our control.

I will next mention the investigations of Dr. Gardner, of Bedford, Ind., who has made some valuable discoveries, by the aid of the microscope, in milk sickness. He took the blood of a cow that had an undoubtedly well-marked case of the disease and placed a drop of it under his microscope. He says: "I was startled, but not surprised, to see that in a small space embraced in the field of the microscope, and which could be covered by the transverse section of a cambric needle, there were countless multitudes of actively-moving, writhing, twisting bacteria. They seemed to cling to the blood disks, to be between them, and to be in such innumerable multitudes as to fairly fill the observer with horror at the bare thought that the blood of even a domestic animal should have such terrible inmates." The cow died in two days afterward, and some dogs ate of the carcass, and they too were attacked by the disease, and their blood showed the same kind of bacteria. A family attacked had not eaten milk or butter. He subjected the stagnant spring water from which they drank to a microscopic examination, when the same forms of bacteria appeared, though the water looked clear and nice to the unaided vision. He

next took the milk of a cow, which milk had imparted the disease to a family, and found that it also contained the same living organisms as the blood and water. He contends that these septic bacteria are capable of perpetuating the disease in a continuous chain of animals, as one should eat the flesh of another, and that mineral or organic poisons would, by a rapid system of attenuation, become harmless in the second or at most the third remove from the animal eaten, which fact excludes all non-vitalized substances.

I have had no opportunity of verifying the investigations of Dr. Gardner as to the character of the germs of milk sickness.

Germs of Whooping Cough.—"Dr. Karl Burger, of Bonn, claims to have discovered the bacteria of whooping cough, and regards them as being the disease, because, 1st. He does not find the bacteria in other sputa; 2d. They exist in such proportions in the expectoration of pertussis that their influence can not be doubted; 3d. Their number is directly proportionate to the intensity of the illness in the course of the same, or of other individuals; 4th. The symptoms and progress of the disease may be best explained by the development of the bacteria."

I have subjected the scrapings of the tongue in pertussis, after being colored, to the powers of a good microscope, and found bacteria in great abundance.

I have some slides containing specimens of bacteria in a good state of preservation, found in the urine of a man suffering from cystitis; they are very abundant, and are of the species known as bacteria termo, and having the appearance of many links of sausage, as we may see them hanging in the shops. Some have their ends touching and appear to be united by a slender attachment, while many others are found in separate links.

The secretions from the tongue of a typical case of diphtheria present bacteria different from those of mumps or typhoid fever. They consist of rod-shaped bacilla in segments, resembling the links of a chain, and are rarely found separate, as in the case of those from decomposed urine in the case of cystitis above mentioned. I have found no specimen of bacteria identical with those from diphtheria patients.

Since commencing the investigations of disease germs I have not been able to obtain a sufficient number of specimens of the several diseases investigated to make my researches at all conclusive, but hope in future to be able to verify the discoveries made, or to correct the history of any case where other bacteria may have been accidentally found together with those of the disease, and which complicated the investigation.

Malaria.—From the secretions of the tongue in uncomplicated cases of malaria the bacteria were found in immense quantities, and all of the rod-shape, and may be characterized by their particular great length, and each bacteria entirely separate and distinct and independent of its fellows. The bacteria of phthisis is also of rod shape and found in very great quantities, similar in shape to those of malaria, but all of them having this distinct difference, that they are never found to exceed one-fourth the length of the malaria germ.

I am pleased to mention the names of Drs. Kress, Stillson and Center, all of them skilled in the use of the microscope, and each of them kindly and cheerfully rendering me valuable assistance in these investigations.

ON THE MOORE PLAN OF VENTILATION.

BY W. W. VINNEDGE, M. D.

During September and October last I saw notices in the daily newspapers of a new ventilator, the invention of W. E. Moore, Esq., of Thorntown, Ind. The device was then being exhibited at the Louisville Exposition. A little later in the fall persons traveling through Thorntown by rail mentioned having seen the ventilator attached to two or three buildings there, and that citizens of the town spoke very enthusiastically of it. John M. Boyd, M. D., well known as a citizen and practitioner of medicine and surgery, published a testimonial in which he states: "After practicing medicine nearly forty years I think that I can safely say it surpasses anything ever offered to the public." And he makes this statement after a practical application of it to his bank building.

A few weeks later I went to Thorntown to examine the plan. Mr. Moore, its originator, kindly showed me the appliance and explained its workings. The principal one was attached to the Thorntown bank building. It was a long tube, ten to twelve inches in diameter, placed and secured against the side of the building and extending above the roof about fifteen feet, and at its base into the ground probably eight feet; then bent and passed under the building, thence up through the floor of the room occupied by the bank. On the top of the tube above the building was placed a cap or cowl, which was so constructed that it shifted its position with the varying currents of air so that the open mouth of the tube was turned in the direction from which the wind was blowing, in order that the air might be forced down into the building. An outlet tube, also surmounted by a cowl and a vane, turned in the opposite direction, which also passed down into the bank room to relieve it of impure air and to further perfect its ventilation. This appliance, the officers of the bank state, enables them to close the doors and windows during the hot summer months, and to have a fresh current of pure air constantly, thereby rendering it much cooler and freer from dust than formerly. Mr. Moore also showed me the ventilator just described on his dwelling, which he told me he should further improve during the coming year. I was much interested in the work, and asked him what particular experience, if any, had led him to spend so much time, labor and money on the subject of ventilation. He stated his reasons in substance as follows:

The summer of 1881 was very hot, and his house, then in Crawfordsville, was located near stables and stock pens. Himself and family were much annoyed, as well as injured in health, by the unpleasant air and odors about them, and this caused him to look about for a remedy. But two courses were left open to him—either to move away from the surroundings, or to supply better air to his dwelling. He chose to try the latter, and first endeavored to accomplish his object by placing as many feet of gas piping in an upright position as could be so maintained, and surmounted this tube with a cap provided with a large mouth, and pivoted so that the opening turned in the direction from which the air was moving. The height of the tube he believed should be from fifty to seventy-five feet, in order to insure pure air. He says: "I soon found that the vertical tube should be in sections, so that

it might be lowered for repairs if any were necessary. I first tested a tube one-half the height required, and then added a second tube, by telescoping a second section into the first. Having the matter now under control, and confident of the changes it would bring about, I began observing its effects. A tube twelve inches in diameter, and raised to a height of forty feet, attached to a one story building, caused a difference, at mid-day, of 7° Fahr. That is, in two adjoining rooms, similarly situated, one ventilated in the usual way by doors and windows, and the other only by means of the tube, showed a difference in favor of the latter of seven degrees. Besides the improvement in temperature, the room ventilated by the tube was freed of all dust, insects, such as flies, gnats, etc., etc. This enabled us to dispense with the use of screens, and to close our doors and feel secure against burglars. Myself and family enjoyed a comparatively cool atmosphere in midsummer during the day, while at night our sleep was uninterrupted and refreshing. During the illness of President Garfield, when his attendants were casting about for means to supply his apartments with pure air, free from malaria, I ventured to draw their attention to the device I have described, and to urge a trial of it for his comfort and safety.

"Soon after this, I discovered that air traveling under ground was much cooler in summer, and much warmer in winter. The temperature of the earth, six or eight feet below its surface, is 48 to 52 degrees. Air conveyed through tubes impervious to moisture, at this depth is, if the distance be only a few feet, cooled greatly in summer, and in the extreme cold weather warmed correspondingly. The ventilator thus becomes an economizer of fuel in winter."

After watching closely the practical workings of his ventilator for months, Mr. Moore says that he finds air can be forced by it through a tube, of the size he has named, in the earth, any given distance without detracting from its good qualities, and be discharged into a building at a uniform temperature of 46 degrees above freezing point.

During December 1883, since the above notes were made, Mr. Moore has improved and enlarged the invention. He has built near his house in Thorntown, a wooden tower about forty feet high, much like a wind-wheel frame, except that it is boarded up, and on the top of this he has placed the cap or cowl already described. The air forced into the top of this tower enters five or six feet below its base, an underground passage of brick and cement which is about seventy feet in length. In this way he furnishes air to his dwelling. This air did not, during the extremest cold weather, when the thermometer outside showed 28 degrees below zero, reach freezing point, showing an actual difference of 64 degrees.

Mr. Moore is the owner of at least two patents on his invention.

This somewhat scanty description of Mr. W. E. Moore's plan for obtaining pure air in public and private buildings, hardly does justice to so much honest work; but it is, I hope sufficient to convey a tolerably clear idea to the reader of the principles on which it is based. The system, although incomplete and defective, possesses much merit; and while it is without any doubt original with Mr. Moore, it closely resembles, in some of its features at least, the plan proposed by Sylvester,* in England, fifty or sixty years ago. This plan is described as follows: "A large cowl turning towards the wind was placed in a convenient spot near the building to be ventilated, a little above the ground if in the country, or at some height if in town. The wind blowing down the cowl passed through an underground channel to the basement of the house, and entered a chamber in which a so-called cockle-

* Parke's Hygiene, p. 153.

store or calorifere of metal plates, or water or steam pipes, by which the air was warmed. It then ascended into the rooms above by means of tubes, and passed out by a tube or tubes in the roof, which tubes were covered by cowls turning from the wind. So that the aspiratory power of the air was also used.

The author of the Moore Ventilator makes use of the term *ventilation*, it seems, in a very comprehensive sense, and in his system for the conveyance of pure air to inhabited rooms he works to this idea. But his work is, according to my understanding of it, limited to that branch of his subject which concerns itself with furnishing pure air to inhabited buildings. He wisely concludes that one can not enjoy too much air of a good quality, but so far has not, I think, taken any steps to measure the velocity of the air passing down through his tube and into his dwelling, so as to provide against currents; nor has he furnished any tests as to whether the air furnished is uniformly properly pure, excepting the test of smell.

Inseparable with ventilation is the art of warming rooms, and in this climate this is no small undertaking. Any plan of ventilation which does not include and comprehend the furnishing of heat to rooms in cold weather is incomplete. Mr. Moore undertakes in his plan, according to my study of it, to force pure air into a house and expects it to find its way out of the building by the outlet tube—its exit being hastened in winter by the heat of stoves and grates. (See diagram). This plan has, he writes, worked satisfactorily in his own dwelling during the past severe winter. This testimony, as well as his patient work, is entitled to attentive consideration.

But this plan of ventilation is too young to have been tested sufficiently to admit of an estimate of its effects or applications. The inventor expects to further test it, and will probably improve it. In its present state it seems to be applicable to the ventilation of hospitals, public halls, factories, school houses, and in houses heated by furnaces. The vertical tube and cap might be rendered very useful in summer ventilation. If the lower end of the tube was connected with the channel necessary to these furnaces, pure cold air could, I think, be forced into all parts of the dwelling, which would, according to Mr. Moore's experience, insure pure air much reduced in temperature.

CHOLERA.

The serious outbreak of Asiatic cholera in Egypt early in the summer, its rapid spread, and appearance in London in July, occasioned apprehensions that it would, as heretofore, cross the Atlantic in some vessel from an infected part, and again secure a footing in America, and add another to those desolating marches which had caused such horror in 1832 to 1834, 1841 to 1850, 1847 to 1854, 1864 to 1867, and which authorities on that malady, greatly feared would again reach us from 1883 to 1885.

A special meeting of the Board was called July 26, 1883, and after a full and careful consultation, the following circular letter was sent to all the Health Officers in the State:

OFFICE STATE BOARD OF HEALTH,
NO. 21 MASONIC TEMPLE,
INDIANAPOLIS, IND., July 26, 1883. }

To County and City Health Officers:

In view of the usual prevalence of malarial diseases at this season of the year, and of the possible visitation of cholera to the United States during the present summer months, the State Board of Health deems it a duty to place the several cities and towns in the best possible sanitary condition in order to prevent, if possible, the invasion and spread of this scourge. Disinfectants and cleanliness the Board recognizes as the best measure to prevent the invasion, as well as the best remedies to prevent the spread of the disease. Therefore, Health Officers of the several counties of the State, and the Health Boards of all cities and towns are hereby directed to take immediate action for the removal of accumulations of filth, such as decaying animal and vegetable matter from the streets, alleys and lots of their respective municipalities. It is important that the gutters and drains be flushed frequently, and kept clean. All privy vaults, sinks and cess-pools should be thoroughly cleaned and disinfected, as provided in Rules 1, 2, 3 and 4 of Rules and Regulations of the State Board of Health. All rank vegetation near occupied dwellings should be cut and promptly removed and destroyed, and not be left to rot under the influence of rains and the hot sun of the summer. Hog pens, foul stables, unwholesome cellars, and all other places suspected of being or becoming injurious to public health should be promptly cleaned and kept clean.

If any resistance should be made to the execution of this order, the Health Officer in the city, town or county is directed to take immediate steps for the pun-

ishment of the offenders, as provided in the Revised Statutes of 1881 for the punishment of "offenses against public health." (See sections 2065 to 2075, inclusive.)

In the event of the appearance of cholera in any county, city or town, the Health Officer should at once cause the isolation of cases, and attend at once to the use of disinfectants, by burning of coal tar, and the free application of lime or copperas on the streets, alleys and gutters, and on or about infected premises. Especial care should be taken to disinfect and destroy discharges from the bodies of the persons sick of this disease. Too much attention can not be given to the source of water supply in order to prevent it from becoming contaminated by imperfect drainage and surface water. All suspicious wells should be closed up at once. (See Rules and Regulations of State Board of Health for specific instructions.)

Health Officers of all incorporated cities and towns throughout the State are instructed to cause frequent and thorough inspections (as directed in Rule 12 of State Board of Health) of all vegetables and other articles offered for sale as food; such vegetables in a state of fermentation or decay are a common source of diseases of this class.

By Order of the Board,

E. R. HAWN, *Secretary*.

Happily for America, the extraordinary efforts made by the health authorities in London to "stamp" out the disease were successful, and for a time at least we are spared from its ravages. In view of the fact, however, that it still lingers in Egypt, and the exceedingly infectious character of its poison, the many opportunities to transmit it to Europe and America, it may be well to add a few remarks upon the disease and its prevention.

This disease is justly denominated the greatest pestilential curse of both ancient and modern history. From the time of Hippocrates, 460 to 370 years before the Christian era, down to the present, an unbroken chain of accounts of its peculiar pathological manifestations, and of its fearful ravages, exists. Millions of human beings have fallen victims to it, and the very last cases observed in Egypt were none the less violent than those described by Hippocrates or Celsus. Its origin is unknown, but it is known that the disease is at home among filth and unhygienic surroundings in all climates and zones. Under the tropical suns and in the moist atmosphere of India, where the grossest hygienic faults exist, where superstition, mythology, idolatry, squalor, wretchedness, starvation and all other abominations prevail, cholera has domiciled itself for the last 2,000 years, and upon occasions of those vast pilgrimages which so often take place in that land, cholera numbers its victims by hundreds of thousands, and attaches its infective poison to the

bodies and effects of those that are spared, and is carried along the highways of commerce and travel to all parts of the world. At any point where it may be carried, if favorable surroundings are found, it plants its germs, and new centers of infection rapidly propagate the poison, to be disseminated as widely as human intercourse extends. Since 1854 very much has been learned regarding this disease, and for the first time in history sanitarians feel confident of being able to restrict it, and under favorable conditions to stamp it out.

The following propositions embrace a synopsis of what is agreed upon among those observers who have had the greatest opportunities of acquiring a knowledge of the malady, and were approved and submitted to the United States Congress in the "Report of the Cholera Epidemic of 1883 in the United States," by a special committee, under the auspices of the United States Marine Hospital Service.

Proposition I.—"That Asiatic cholera is an infectious disease, resulting from an organic poison, which, gaining entrance into the alimentary canal, acts primarily upon and destroys the intestinal epithelium."

Proposition II.—"That the active agents in the distribution of the cholera poison are, the dejections of persons suffering from the disease in any of its stages; that, in these dejections there exists an organic matter, which, at a certain stage of decomposition is capable of reproducing the disease in the human organism to which it has gained access."

Proposition III.—"That cholera dejecta coming in contact with, and drying upon any object, such as articles of clothing, bedding, and furniture, will retain indefinitely their power of infection. That in this manner a sure transmissibility of the cholera infection is effected, and that a distinct outbreak of the disease may occur by such means at great distances from the seat of original infection."

Proposition IV.—"That the specific poison which produces the disease known as cholera, originates alone in India, and that by virtue of its transmissibility through the persons of infected individuals, or in the meshes of infected fabrics, the disease is carried into all quarters of the world. That cholera has never yet appeared in the western hemisphere until after its route of pestilential march has been commenced in the

eastern world, and that its epidemic appearance upon the North American continent has invariably been preceded by the arrival of vessels infected with cholera sick, or laden with emigrants and their property from infected districts."

Proposition V.—"That the respiratory and digestive organs are the avenues through which individual infection is accomplished; that through the atmosphere of infected localities, cholera is frequently communicated to individuals; that water may become contaminated with the specific poison of cholera from the atmosphere, from surface washings, from neglected sewers, cesspools or privies, and that the use of water so infected will induce an outbreak of the disease."

Proposition VI.—"That the virulence of a cholera demonstration, the contagion having been introduced into a community, is influenced by the hygienic condition of the population, and not by any geological formation upon which they may reside."

Proposition VII.—"That one attack of cholera imparts to the individual no immunity to the disease in the future, but that the contrary seems to be established."

Granting the correctness of these *Propositions*, the truth of which is unquestioned, it is at once evident that to insure against the terrors of cholera, it is necessary to adopt measures to prevent its advent into our cities and towns. Or, should it unexpectedly secure an entrance, to adopt such measures as shall prevent its propagation and the spread of the infection. To accomplish the *first* a rigid quarantine against infected localities, and the exclusion of *persons* or *things*, which are the probable carriers of the germs of the disease, are imperatively demanded. This, when *effectually* done, is a reliable safeguard. But, in these days of so rapid and wide transit, in the absence of military authority and discipline, it is practically impossible to guarantee a community complete protection by this method. We are compelled, therefore, to look to the *second* method of protection. In this, as well as in all other miasmatic diseases, the first step in protective measures is to place the community and surroundings in as good a hygienic condition as is possible. The streets, alleys and vacant lots in and about the locality should be thoroughly drained, cleaned and disinfected. Cesspools, gutters, ponds of water, masses of decaying animal and vegetable matter, should at once be abolished, cleaned and dis-

infected. Running streams of water, sewers, drains and pipes should be cleaned, purified and constantly disinfected. The houses and surroundings should be rigidly inspected; and everything in the way of vaults, cess-pools and hog-pens; the back-yards, kitchens, cellars, sinks, pipes, barn and barn-yards, should at once be thoroughly and persistently cleaned and disinfected, and *kept* so by frequent official inspection. *Filth, squalor, personal uncleanness*, and all other abominations against hygiene, should be firmly repressed. Most especial attention should be paid to isolate the sick, and to the destruction of all the ejections from them. *These* contain the poison, and they should *never* be removed from the sick-room until *thoroughly disinfected*. Then they should be *buried* far enough away from the source of water supply to insure against contamination.

If physicians and sanitarians, also health officers, would only remember the following simple propositions and adhere to them rigidly in case of a visitation of cholera, the disease would be shorn of its terrors:

First. That cholera is an EXOTIC disease;

That it NEVER occurs spontaneously;

That it is a SPECIFIC poison, occurring OUTSIDE of the patient.

Second. That a patient afflicted with cholera is the result of poisoning, by the introduction of mórbiſic matter, through the air passages or digestive apparatus.

Thirdly. That every cholera patient is a LIVING arsenal of cholera infection, which is being rapidly thrown off in the excretions of the body.

Fourthly. That these ejections are the very ESSENCE of poison, that if these poisonous discharges are PROMPTLY and THOROUGHLY disinfected, the poison is DESTROYED and no danger of the spread of the disease exists.

Fifthly. That to throw the undisinfected contents of a vessel containing these discharges out upon the open ground, into a vault, or a gutter, a sewer or stream of water, is criminal negligence or carelessness, and as exceedingly dangerous as putting a spark of fire into a powder magazine. That soiled clothing or bedding is full of poison, and a source of great danger.

Seventhly. That "cleanliness is next to Godliness," and a complete disinfection an immutable safeguard against cholera.

These lessons once learned, their importance comprehended,

their precepts obeyed by physicians and patients, cholera can be stamped out in any locality in a very few days.

The true remedy against cholera is preventive medicine, and during the presence of the disease in any country, "Eternal vigilance is the only price of safety."

In addition to the directions for disinfection and list of disinfectants, found on pages 135, of this report, all of which apply to cholera as well as other zymotic diseases, it has been demonstrated that the mineral acids possess a very high degree of power in destroying cholera germs—sulphuric acid and its preparations standing first in the list.

With a generosity characteristic of the appreciation of scientific progress, which is yet unknown to America, the French and German governments have donated a large amount of money to equip and sustain an expedition of investigation into the localities now infected with this disease. Some of their most eminent scientists, headed by Koch and Pasteur, have been at the seat of the disease for several weeks, making *post mortems* and endeavoring to obtain new facts regarding its pathology, ætiology, and progress. So far nothing new has been discovered. A bacillus has been observed, but all attempts to propagate the disease from it have proven negative. The true value of disinfection and isolation, however, has been again demonstrated.

SURVEY OF PUBLIC INSTITUTIONS.

In July, the Board ordered the Secretary to make an examination of the various State institutions. The death of Dr. Hawn, and the numerous duties of the present Secretary have prevented such inspection. Blanks, however, have been prepared for the survey, and the results will be published in our next report.

COUNTY ASYLUMS AND JAILS.

Knowing that the various county jails and asylums for the poor were often deficient in hygienic requirements, a set of blanks has been prepared for a careful and critical survey of all these institutions, which will be done within the present year. This work together with other series of investigations, and the holding of sanitary conventions in various parts of the State, will afford opportunity for the Board to demonstrate its efficiency.

SECOND ANNUAL REGISTRATION REPORT

CONCERNING

VITAL STATISTICS OF INDIANA.

1883.

BY E. S. ELDER, M. D.,

Superintendent of Vital and Sanitary Statistics.

The collection of vital and sanitary statistics, their compilation and the deductions drawn from them, have long been objects of great interest to students of sanitary science, and of great importance to the public. For many years past the European countries have had this done, and in some of the older States of the Union, records have been kept of marriages, births and deaths, for several years past.

The law creating a Board of Health in Indiana, provided that a bureau of vital and sanitary statistics should be established under the supervision of the Board of Health, and that the Secretary of the Board should be the superintendent of the bureau. Forms of blanks were prepared and furnished to the various county health officers, and the work inaugurated. Considerable complaint was made that the forms of reports were inconvenient, unnecessarily specific and too comprehensive. In June last the Board, after careful consideration, adopted the following forms for births, marriages, deaths and disease reports, and agreed to furnish them free of cost to the various boards of health in sufficient quantities to supply all the physicians in the State.

These blanks are printed on different colors of paper, and bound in books of fifty each, viz.: twenty-five birth, fifteen death, and ten dangerous disease blanks in each book. They have given universal satisfaction.

FORM 5.
BIRTH RETURN.

1. Name of child.....
2. No. of child of this mother.....
3. Sex..... Color.....
4. Date of birth.....
5. Place of birth.....
6. Born alive..... 7. Legitimate.....
8. Natural labor..... 9. Difficult labor.....
10. Cause of difficult labor.....
11. Means of relief.....
12. Mother's maiden name.....
13. Mother's age 14. Mother's residence..
15. Mother's birthplace.....
16. Father's name.....
17. Father's age..... 18. Occupation.....
19. Father's birthplace.....
20. Returned by, M. D.
21. Postoffice address
22. Date of return, 18—

FORM 3.
MARRIAGE RETURN.

1. Full name of groom.....
2. Place of residence.....
3. Age next birthday years.
4. Color.....
5. Occupation.....
6. Place of birth
7. Father's name.....
8. Mother's maiden name.....
9. No. of groom's marriages.....
10. Full name of bride.... .. Maiden name, if a widow.....
11. Place of residence.....
12. Age next birthday years.
13. Color.....
14. Place of birth.....
15. Father's name.....
16. Mother's maiden name.....
17. No. of bride's marriage.....
18. Place of marriage.....
19. By.....
20. Dated..

FORM 9.

DEATH RETURN.

1. Name of deceased
2. Age..... 3. Sex..... 4. Color.....
5. Residence.....
6. Single, Married, Widow or Widower. [Cross out words not required.]
7. Cause of death.....
8. Occupation.....
9. Birthplace.....
10. Place of death.....
11. Duration of Disease.....
12. Complication.....
13. Duration of complication.....
14. Date of death.....
15. Father's name.....
16. Father's birthplace.....
17. Mother's maiden name.....
18. Mother's birthplace.....
19. Date of return.....
20. Reported by..... M. D.
21. Post Office.....

FORM 7.

RETURN OF DISEASE.

I report a case of.....in the family of.....
 Residing at.....No.....Street.

1. Name.....
2. Age..... 3. Sex..... 4. Color.....
5. Birthplace.....
6. Single, Married, Widow, Widower. [Cross out words not required.]
7. No. in family.....
8. No. affected.....
9. Date of return.....
10. Reported by.....
11. Post Office.....

On the reverse of each of these is the following:

FORM 9.

RETURN.

STATE BOARD OF HEALTH,County, Ind.

This blank must be filled and returned promptly to the proper Health Officer.
 Failure to do so may subject the physician to a fine of \$5 to \$10. See Act 1881,
 page 41, sec. 10.

Filed..18...., Health Officer.

After careful examination and an experience of several years in sanitary and vital statistics, we are persuaded that these blanks can not be abridged without impairing their value. A very imperfect conception of the value of these reports exists in the minds of many medical men and the laity. *Medical* men forget that this work is not exclusively for the benefit of sanitary science, and the *laity* fail to appreciate the value of those questions relating to that department, and fail to discern any other value.

The statistical and clerical work of the State and County Boards of Health have a *dual* value, a *legal* and a *medical* one.

This medico-legal value attaches to the birth, marriage and death returns more exclusively. For instance, the birth returns provide in questions 1, 2, 3, 4, 5, 7, 13, 14, 15, 16, 17, 18 and 19 for the identification of the *child*, and in questions 2, 3, 4, 5, 6, 7, 12, 13, 14 and 15 for that of the mother, whilst questions 2, 16, 17, 18 and 19 provide for the father's recognition. Questions 2, 8, 9, 10 and 11 *alone* belong to the medical history. In the marriage returns questions 1, 2, 3, 4, 5, 6, 7, 9 and 18 refer to the legal history of the bridegroom, while questions 8, 10, 11, 12, 13, 14, 15, 16, 17 and 18 belong to the personal history of the bride; while questions 3, 4, 5, 6, 12 and 14 alone interest the medical men.

Likewise in the death returns. Questions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19 *all* relate to the *personal* of the deceased, and have an important *legal* value, the *medical* being *secondary* all through this as well as the other blanks. The simple ascertaining how *many* have died during the year is of comparatively little importance to the medical man. *Causes* of death, the proportion of deaths from different diseases, the per cent. of deaths from zymotic or preventable diseases, the *cause* of these diseases and their *prevention* are the vital questions which interest us as sanitarians and physicians. The other questions relating to the individual history of each person whose birth or death is reported, are important to the State, and every question on the blanks is an eminently practical one in a medical or legal sense.

As the age and population of our State increases, and real estate becomes more and more valuable, with the restless activity and energy characterizing American industry, families will become more and more scattered, and in the disposal of trusts,

the entailment of real estate, the settlement of vexed questions of identity, the records of the health offices will become a constant necessity and of increasing value. We earnestly hope that health officers and physicians, and persons solemnizing matrimony, will appreciate these facts and make full and complete returns of marriages, births and deaths, carefully filling *all* the blanks.

The return of disease blank is the one most interesting to the medical man and health officer, yet it is the most neglected of all. If we could secure early returns of the prevalence of diseases "dangerous to public health," measures could speedily be resorted to to arrest the progress of disease. Comparisons of the healthfulness of localities could be made, the clinical history of these diseases could be studied, and an opportunity would be given to demonstrate the value of sanitary supervision. These returns should be made a subject of municipal ordinance in cities and towns, and should be required within twenty-four hours after the detection of the presence of the particular malady.

The tables, number one to 10, are an embodiment of the work of the Bureau in the collection of vital and sanitary statistics for the year. We are fully conscious of the fact that the total mortality is much greater than that here reported; consequently the death rate per thousand inhabitants in the various counties is not presented, as it would be grossly unjust to counties making full reports of their mortality to contrast their death rate with that of counties which have failed to report a large per cent. of their deaths.

However, according to the reports, the entire mortality of the State is about eight per thousand inhabitants. This we consider not more than one-half the actual mortality. The counties of Marion, Vigo, Vanderburg and Wayne, each of whose population is largely in cities, show a mortality of about fourteen per thousand. This is a very satisfactory exhibit, for in each of the cities whose inhabitants constitute so large a part of the population of their respective counties, death returns and burial permits are required by municipal ordinance, and we believe that the deaths are fairly well reported.

We are well aware of the fact that this is an exceedingly low death rate. But five years' experience with the collection of vital statistics in the Capital and largest city in our State,

has convinced me that the death rate in Indiana is not above sixteen per thousand. The Census Reports of 1880 give a reported mortality for the entire United States of 15.1 per thousand. The editor of that department of the work, John S. Billings, M. D., U. S. Army, after a careful and laborious calculation, concludes that the true death rate for the entire United States and Territories was not less than *seventeen*, nor greater than *nineteen*, per thousand. He fixes it at 18.2. Indiana has enjoyed immunity from epidemics of fatal diseases. Yellow fever, smallpox, diphtheria, and other zymotic diseases, have either not made their appearance in our State, or the attacks have been mild and circumscribed. We have no crowded tenement quarters in our cities; no large pauper class. Our cities are yet new and clean, and not crowded. While formerly we suffered from malarial diseases, our reports show that we do not suffer largely from them at present. The death rate in the rural population of England in the year 1880 was about 18.5 per thousand; for the whole of England that year it was 20.5 per thousand. For Scotland, in 1878, it was 21.3 per thousand.

The conditions surrounding us are different from those in England and Scotland, and we can confidently expect a lower death rate. Dr. Billings says that:

"The low death rate in this country is considered to be due to the comparative absence of over-crowding, and to the more general and equable distribution of the means of supporting life, including especially the abundant food supply of good quality for all classes of people."

We have arranged the *causes* of death according to the most approved nosology. This classification is much more satisfactory than a mere alphabetical arrangement. The total number of deaths reported during the year ending September 30, 1883, was fourteen thousand nine hundred and twenty-five. Deducting from these the deaths from *violence* (seven hundred and forty), *still-births* (eight hundred), *premature births* (two hundred and forty-five), *old age* (two hundred and seventy-four), leaves us a mortality of twelve thousand eight hundred and sixty-six from *disease*.

Of the total deaths, there were from Zymotic Diseases, Class I, three thousand eight hundred and sixteen.

Constitutional Maladies, Class II, two thousand five hundred and forty.

Local Diseases, Class III, five thousand three hundred and thirty-four.

Developmental Diseases, Class IV, one thousand nine hundred and seventy.

From violence, seven hundred and forty.

From unknown and unclassified or unreported causes, five hundred and twenty-five.

The following is a comparative statement of the mortality during the two years existence of the "State Board of Health," the mortality of 1882 being based on nine months ending September 30, 1882:

COMPARATIVE MORTALITY IN THE STATE OF INDIANA FOR TWO YEARS
ENDING OCTOBER 1, 1883.

For nine months ending Sept. 30, 1882. Total Mortality, 11,067.	Total Deaths from All Causes.	Per Cent. of Total Mortality.	For Year ending Sept. 30, 1883, 1882, and 1883. Total Mortality, 14,925.	Total Deaths from All Causes.	Per Cent. of Total Mortality.
Zymotic Diseases	3,200	28.91	Zymotic Diseases	3,816	25.5
Constitutional Diseases	1,717	15.51	Constitutional Diseases	2,540	17.1
Local Diseases	3,926	35.48	Local Diseases	5,334	35.8
Developmental Diseases	1,639	14.82	Developmental Diseases	1,970	13.2
Violence	522	4.70	Violence	740	4.9
Unclassified and unknown	63	.57	Unclassified and unknown	525	3.5
Total	11,066	100.00	Total	14,925	100.00

This table is interesting from the fact that while it exhibits a larger number of deaths in the previous year, yet the per cent. of deaths from zymotic diseases is less than last year, thus proving that the present year has been healthier than the preceding one, the excess of reported deaths from other than zymotic diseases being due to more complete reports from the County Health Officers. The proportion of deaths from zymotic diseases is below the average mortality from that class. Last year it was 28.9. The usual death rate from this class of diseases is about 30 per cent. of the total mortality. This class of diseases is of intense interest to the sanitarian. It embraces the "preventable class" of diseases, all those arising from pub-

lic or personal neglect and uncleanness. Those that feed upon filth and unhygienic surrounding. It embraces cholera, diphtheria, small-pox, yellow fever and all terrible maladies which have swept in such desolating waves over the earth. It is to this great class that official hygienic and sanitary regulations are mortal enemies, and in the light of progressive sanitary science we now feel authorized to say that the continued presence or frequent destructive visits of any one of these diseases is a reproach upon the sanitary intelligence and industry of any land, and thanks to the efficiency of hygienic supervision, the deaths in the city of London have been reduced from forty-two to twenty-two per thousand. In Paris from fifty to twenty-four per thousand. In Liverpool to six per thousand. In Manchester to three per cent. In the city of New Orleans, from seventy per thousand previous to and from 1850 to 1855 to twenty-five per thousand since 1879. In other American cities, a like gratifying reduction in the yearly sacrifice of human lives has taken place, and yet very much remains to be done. It is this great class of diseases that falls under the province of "Boards of Health" and hygienic supervision, and against which we wage and unceasing warfare. Unceasing, because as rapidly as we restrict them in one direction they appear with increased vigor in another. Thus, while we drain our swamps and reclaim our waste lands, remove the dense forests and underbrush, and cultivate our lands, thereby reducing malarial diseases, another class of maladies spring up, resulting from the aggregation of human beings. And as the rural districts become healthier, the crowded condition of our cities and towns engenders new forms of disease more deadly than the primitive ones.

The introduction of new industries and new occupations, and the establishment of new manufactures, involve the encountering of new and ever-increasing sources of danger, and were it not for the efforts of organized hygienic supervision, the zymotic class of diseases would become continually more deadly. Verily, the price of healthfulness, both personal and public, is "eternal vigilance." With the proper efforts we think that the per cent. of mortality from zymotic diseases, could be reduced to 16 per cent. of the total mortality. This reduction would save in our State twenty-five hundred lives annually, the value of which to the State may be reckoned at one hun-

dred thousand dollars; and estimating that for each death, ten persons were sick, we add at least a quarter of a million more for loss of time, derangement of business, and increased expenses. These figures are very conservative, and far below the usual estimate. Our weapons against this class of ailments are *cleanliness, pure air, good water, isolation, disinfection, vaccination and prevention.*

The following rules and suggestions from the Board in regard to this class of diseases were pulished a year ago:

RULE 16. No parent, guardian, tutor or other person having charge or control of any child or children, shall allow or permit any such child or children to go from any house or building infected with scarlet fever, diphtheria, cholera, small-pox or other contagious or infectious diseases, to attend any public school or any place of amusement, or to travel in any street car or public vehicle.

RULE 17. Whenever any householder shall know or suspect that any person within his family is sick with the small-pox, scarlet fever, diphtheria or any other disease dangerous to the public health, he shall immediately give notice thereof to the board of health, or the local health officer.

RULE 18. Whenever any physician shall know or suspect that any person whom he is called to visit is infected with the small-pox, scarlet or typhoid fever, diphtheria or any other disease dangerous to the public health, such physician shall immediately give notice thereof to the local board of health, or health officer of the local board; and upon such notice being given, the health officer of such board shall immediately report such case to the Secretary of the State Board of Health, together with the locality and full description of the case.

RULE 19. Upon notice being given of cases of small-pox or varioloid within the jurisdiction of this Board, some member of the Board or the health physician shall cause a *red* cloth or flag, having "small-pox" conspicuously printed thereon, not less than twelve inches square, to be fastened upon the front door or other conspicuous place of each building in which such sickness prevails, said cloth or flag to be maintained during the existence of the disease, and until such time as the health physician is satisfied the premises have been properly cleaned,

disinfected and purified. In cases of scarlatina, diphtheria or rubeola, a *yellow* flag shall be used in the same manner in which red is used in small-pox. If said yellow cloth or flag is removed without authority from the health physician, the name of the person or the head of the family occupying the premises, together with the number of the street, or location, shall be published, and the person removing said cloth or flag, or causing their removal without authority of the health physician, shall be subject to the penalty as provided hereafter.

RULE 20. Every person affected with small-pox or varioloid, diphtheria or scarlet fever, shall be isolated as much as possible from all other persons, and shall occupy a room in which there are no unnecessary articles of furniture, as carpets, cushioned chairs, lounges, window curtains, clothing, etc. The rooms which have been occupied by such diseased person should, if papered, have the paper removed entirely from the walls; the walls should be white-washed, the floors scrubbed, the room thoroughly fumigated, disinfected and ventilated.

RULE 21. No person recovering from infectious disease shall be permitted to appear on the public streets within the health limits of this Board, or public highway, or in any public place, until all danger from contagion by reason of such disease is passed.

RULE 22. Each day brings evidence of the increasing danger and virulence of this loathsome disease—small-pox—and also increased evidence of the power of vaccination to save from its ravages all persons who avail themselves of its protective influences. It is the duty of all unvaccinated persons within this State to be vaccinated immediately. All persons coming into this State, who are unprotected, are requested to be vaccinated on their arrival. It is desirable that all children born within this State be successfully vaccinated within twelve months after birth. Vaccination should be with reliable bovine virus.

RULE 23. Every person dying of infectious disease should be thoroughly washed with zinc solution of double strength, then be wrapped in a sheet with the zinc solution, placed in as tight coffin as possible, and buried immediately. No public funeral shall be held at a house where there is a case of infec-

tious disease; nor in which a death from such has recently occurred.

RULE 24. The room in which there has been a case of infectious disease must be thoroughly disinfected immediately. Any diphtheric corpse, or that of any infectious disease, should be placed in a hermetically sealed coffin, the body having been first wrapped and surrounded with disinfectants.

RULE 25. The provisions of sections of acts of the General Assembly of Indiana, in relation to public offenses, their punishment, etc., approved April 14, 1881, will be enforced by this Board of Health.

BURIAL AND SHIPPING PERMITS.

RULE 31. No undertaker or other person shall remove from or bring within the limits of this Board the body of any deceased person, dying of a dangerous, infectious or contagious disease, except with the knowledge, consent and approval of a county, town or city health officer, and then such transportation shall be made under his care and direction, and according to rules 23 and 24.

The attention of health officers is called to sections of Revised Statutes of 1881, from 2065 to 2075 inclusive, providing for punishment of offenses against public health, where will be found the authority for enforcing the rules herein promulgated.

We here give some general directions for dealing with the more common of this class of affections, which will apply to all.

The following Preventable Disease Circular has been prepared by the Board and largely distributed:

DIPHThERIA, SCARLATINA and SMALL-POX are all INFECTIOUS as well as CONTAGIOUS diseases, hence the strict observance of the following precautions is of very great importance:

1. When a child or a young person has a sore throat, bad odor to its breath, and especially if it has fever, it should immediately be kept separated from all other persons, except necessary attendants, until it be ascertained whether or not it has *Diphtheria* or *Scarlet Fever*.

2. Every person known to be sick with *diphtheria*, *scarlatina*, or *small-pox*, should be promptly and effectually isolated from the public; no more persons than are actually necessary should have charge of or visit the patient, and they should be restricted in their intercourse with other persons. Every case of either of

these diseases should immediately be reported to the board of health, as the law requires.

3. *Plain and distinct notices should be placed upon the premises or house in which there is a person sick with diphtheria, scarlet fever or small-pox, and no child shall be allowed to enter.*

4. Remember, that VACCINATION and RE-VACCINATION with fresh *bovine virus*, is a SAFE and SURE PREVENTION OF SMALL-POX.

5. The room into which one sick with *diphtheria, scarlet fever or small-pox* is placed should previously be cleared of all needless clothing, carpets, drapery, and other materials likely to harbor the poison of the disease. This room should constantly receive a liberal supply of fresh air, without currents or drafts upon the patient. It will be well also to have the sun shine directly into the room.

6. The discharges from the throat, nose, and mouth are extremely liable to communicate these diseases, and should be received in vessels containing a strong solution of copperas (sulphate of iron), formula No. 1, or on soft rags or pieces of cloth, which should immediately be burned.

7. The discharges from the kidneys and bowels are also dangerous, and should be passed into vessels containing a strong solution of sulphate of iron (copperas), see formula No. 1, and then be *buried* at least 100 feet distant from any well; or when this is impracticable they should be passed on old cloths, which should immediately be burned.

8. The clothing, towels, bed-linen, etc., on removal from the patient should at once, before removal from the room, be placed in a pail or tub of boiling-hot zinc-solution. See formula Nos. 3 and 4.

9. Nurses and attendants should be required to keep themselves and their patient as clean as possible; their own hands should frequently be washed and disinfected by chlorinated soda. See formula No. 5.

10. All persons recovering from these diseases should be considered dangerous; therefore such a person should *not* be permitted to *associate* with others, or to attend *school, church*, or any *public assembly* until the throat and any sores which may be on the lips, nose or body are healed, nor until, in the judg-

ment of a careful and intelligent physician he can do so without endangering others; nor until after all his clothing has been thoroughly disinfected, and this without regard to the time which has elapsed since recovery, if the time is less than one year. In case of *small-pox* all infected clothing or bedding should be burned. Nor should a person from premises in which there is or has been a case of either of these diseases attend any school, Sunday school, church, or public assembly, or be permitted to do so, until after disinfection of such premises and of the clothing worn by such person if it shall have been exposed to the contagion of the disease.

11. The body of a person who has died of *diphtheria* or *scarlet fever* should be washed with a zinc solution of double the strength stated in formula 4 or 5, then wrapped in a sheet wet with the zinc solution, and at once be buried. In no case should the body be exposed to view. In case of death from *small-pox* the body should, *unclothed* and *unwashed*, be wrapped in a heavy sheet saturated with the solution and immediately buried.

12. No public funeral should be held at a house in which there is a case of, or in which a death from one of these diseases has recently occurred. Except under extraordinary precautions there should be no public funeral of a person who has died from either of those maladies. No child at least, and it would be better in most cases that few adults, should attend such funerals.

13. Avoid in every possible manner the special contagion of these diseases. This is especially important with children, who are always more susceptible to disease than adults. Mild cases in adults, however, communicate fatal cases to children.

14. *Do not let a child go near a case of diphtheria, scarlatina, or small-pox.* Do not permit any person or thing, or a dog, cat or other animal to come direct from a case of these diseases to a child. Unless your services are needed, keep away from them yourself. If you do visit a case, bathe yourself and change and disinfect your clothing before you go where there is a child, or into a public assembly.

15. The contagion of these diseases retains its virulence for some time, and can be carried a long distance in various sub

stances and articles in which it may have found lodgment. While it is not definitely proved that the germs of these maladies are propagated in any substance outside the living human or animal body, it is possible that they may be found to be thus propagated. Therefore, and because the breathing of air laden with the emanations from decaying fruit, vegetables, or meat, or from sewers, cess-pools, sinks, and other receptacles of filth, is believed to endanger health, great care should be taken to have the house, premises, and everything connected with dwellings kept clean and dry; to have sewer-connections well trapped, and house-drains constantly well ventilated; and to have all carriers of filth well disinfected. Do not permit a child to enter a privy, water-closet, or breathe the air from a privy, water-closet, cess-pool or sewer into which discharges from persons sick with these diseases have entered, nor to drink water or milk which has been exposed to such air.

16. Do not permit a child to ride in a hack or other closed carriage in which has been a person sick with diphtheria, scarlatina or small-pox, except the carriage has since been thoroughly disinfected with fumes of burning sulphur, as specified in paragraphs b., c. and d.

17. All influences which cause sore throats or any impairment of health probably tend to promote the taking and spreading of these diseases. Among the conditions external to the body liable to cause the spread of them, perhaps the most common are: infected air, infected water, and *contact with infected substances or persons*. Because of this, and as means of lessening the danger of contracting other diseases, the following precautions should always be taken, but more particularly during the prevalence of any such disease:

18. Do not wear or handle clothing worn by a person during sickness or convalescence from an attack of either of the diseases.

19. Beware of any person who has a sore throat. Do not kiss or inhale the breath of such a person. Do not drink from the same cup, blow the same whistle, or put his pencil or pen in your mouth.

20. Beware of crowded assemblies in unventilated rooms.

21. Do not drink water which has a bad taste or odor, or which comes from a source that renders it liable to be impure, especially if there is reason to believe it may contain something derived from a person sick with *diphtheria* or *scarlet fever*; especially, be careful about the cleanliness and purity of the milk supplied by your *dairyman*. Numerous epidemics of *scarlet fever* and *diphtheria* have originated with careless dairymen.

TYPHOID FEVER.

1.—*Its Sanitary Features.*

22. For sanitary purposes, Typhoid Fever is a contagious disease. Its specific poison will produce the same disease if introduced into the system of a susceptible healthy individual.

23. The specific poison of Typhoid Fever is contained in the diarrheal discharges (and, possibly, in other excretions and the exhalations) of the patient. If these obtain access to a water supply, or to articles of food or drink, an outbreak of Typhoid will follow among those partaking of such water or food. Repeated instances of this kind have been traced to the use of water from an infected well and to infected milk.

24. The diarrheal discharges, when dry, may preserve the poison as effectually as the crusts of small-pox, the scales of scarlet fever, and the dried membrane of diphtheria, preserve the specific poisons of those diseases.

25. These discharges, coming into contact with putrid animal matter, as by being thrown into water-closets and privies, are capable of saturating such matter with the Typhoid Fever poison in its most concentrated and virulent form.

2.—*Prevention of its Spread.*

26. When a case of Typhoid Fever is known to exist in a neighborhood, strict examination should be made regarding the surroundings and character of the water supply of the locality. If there be any reason to suspect that this may be possibly contaminated from the case, its use should be forbidden until the proper measures can be taken to protect it against such contamination, and the question of its safety be definitely

settled. The location of wells, with reference to the privy into which typhoid discharges are thrown, the inclination of the ground between such points, and the character of the soil, should all be taken into consideration. Wells into which surface-washings from the infected premises might find their way by the natural slope of the ground, and wells within a given distance of the privy of such premises, should be at once abandoned. The contaminating distance varies according to the nature of the soil and the depth of the well; in a loose, porous soil, a well thirty to forty feet deep will be dangerous if within one hundred feet of typhoid premises.

27. Scrupulous cleanliness in every portion of the premises should be enforced. All decaying animal and vegetable matter, and every kind and source of filth in and around the house, should be removed, and disinfectants be freely used. Surface drains and gutters, areas, out-houses, privies, shelters for domestic animals, fowls, etc., should receive close and constant attention, and the *Copperas Disinfectant* (see page 7) be used freely and regularly in every such place.

28. Within the infected house itself the important matter to attend to is the prompt disinfection of the discharges from the patient, and of everything liable to come in contact with such discharges. The following details should be observed:

(a) All discharges should be received in vessels containing a quart or so of the *Zinc Disinfectant* (see pages 7 and 8), or a gill of a concentrated (five per cent.) solution of chloride of zinc, or a solution of copperas, Formula No. 1. (b) If there be a water-closet, this should be used exclusively for the discharges from the patient while the fever lasts, and the receptacle should be flooded three or four times a day with the *Zinc Disinfectant*. (c) When practicable—instead of being thrown into a privy—the discharges, after being thoroughly disinfected, should be buried in the ground, at least one hundred feet away from any well or other source of water supply. (d) A pail or tub of the *Zinc Disinfectant* should be kept in the sick-room, and into this all clothing, blankets, sheets, towels, etc., used about the patient or in the room, should be dropped immediately after use, and before being removed from the room. They should then be well boiled as soon as practicable. Rags, closet-paper, or other material used

about the person of the patient, should be immediately burned, and the same general precautions should be adopted and disinfectants resorted to that are recommended for the other contagious diseases.

DISINFECTION OF ROOMS, CLOTHING, ETC.

29. After a death or recovery from these diseases, the room in which there has been a case of one of them, whether fatal or not, should, with all its contents, be thoroughly disinfected by exposure for several hours to strong fumes of burning sulphur, and then, if possible, it should for several hours or days be exposed to currents of fresh air.

a. Because of the innumerable ways in which the contagion may be scattered about the house and premises where there has been for some little time a case of *diphtheria*, *scarlatina* or *small-pox*, the entire house and out-buildings, including cellar, garret, wood-shed and privy, will usually need to be disinfected.

b. Rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding, and other articles which can not be treated with the zinc solution, should be spread out so as to be thoroughly exposed during fumigation, which should take place in the room where the clothing, etc., has been used in connection with the patient. For a room about ten feet square, at least two pounds of sulphur should be used; for larger rooms, proportionately increased quantities, at the rate of two pounds for each 1,000 cubic feet of air space.

c. Close the rooms as tight as possible, place the sulphur in iron pans supported upon bricks, set it on fire by hot coals or with the aid of a spoonful of alcohol lighted by a match; be careful not to breathe the fumes of the burning sulphur, and when certain the sulphur is burning well, leave the room, close the door, and allow the room to be closed for twenty-four hours.

d. Care should be taken to secure the complete burning of as much of the sulphur as possible. For this purpose the iron pan or pot in which the sulphur is to be placed may previously be heated, and may be placed in the room over hot coals in a pan of ashes set upon bricks.

e. Cellars, yards, stables, gutters, privies, cess-pools, water-closets, drains, sewers, etc., should be frequently and liberally treated with the copperas solution, made as described in Formula 1.

f. Body and Bed Clothing, etc.—It is best to burn all articles which have been in contact with persons sick with contagious or infectious diseases. Articles too valuable to be destroyed should be exposed for one hour to a dry heat of from 240° F. to 250° F., or to be treated as follows :

g. Cotton, linen, flannels, blankets, etc., should be treated with the boiling-hot zinc solution, Formula 3 or 4, introducing them piece by piece, securing thorough wetting and boiling for at least half an hour. Heavy woolen clothing, silks, furs, stuffed bed covers, beds and other articles which can not be treated with the zinc solution, should be hung in the room during fumigation, pockets being turned inside out and the whole garment being thoroughly exposed. Afterward they should be hung in the open air, beaten and shaken. Carpets are best fumigated on the floor, but should afterward be removed to the open air and thoroughly beaten. Pillows, beds, stuffed mattresses, upholstered furniture, etc., after being disinfected on the outside, may be cut open and their contents again exposed to the fumes of burning sulphur. In no case should the thorough disinfection of clothing, bedding, etc., be omitted. Infected clothing and bedding have been known to communicate these diseases months after infection.

THE FOLLOWING DISINFECTANTS ARE RECOMMENDED.

Sunlight, fresh air, soap and water, thorough cleanliness, for general use.

For sink-pipes and water-closets, privies, ash-pits, cess-pools, drains, and in vessels used for discharges from kidneys and bowels, and other offensive places :

No. 1. Sulphate of iron (copperas, green vitriol) 2 pounds.
Rain water 1 gallon.
Misce.

Sig.—Use freely.

When much is wanted, dissolve sixty pounds of copperas in a barrel of water.

No. 2. Nitrate of lead 1 pound.
Rain water 1 gallon.
Misce.

Sig.—Use freely.

FOR ARTICLES OF CLOTHING, BEDDING, ETC., USED ABOUT THE PATIENT.

- No. 3. Sulphate of zinc 9 ounces.
 Crude carbolic acid 1½ ounces.
 Warm rain water 3 gallons.
 Misce.

This is perhaps the most valuable and reliable disinfectant in use.

- No. 4. Sulphate of zinc 5 ounces.
 Chloride of sodium (common salt) 2½ ounces.
 Rain water 1 gallon.
 Misce.

Throw all articles of body linen, sheets, etc., at once into any of these solutions and boil in clear water. In malignant cases such articles should be boiled in one of the solutions, diluted with an equal quantity of water. They can be used freely in the sick room. They do not stain. A towel may be wet with them and hung in the room. A sheet may be hung across the entrance, hall or door, and kept constantly wet with them. Nurses and attendants will find it well to occasionally wash their hands in one of these fluids.

TO WASH FURNITURE AND FIXTURES OF AN INFECTED ROOM AND TO BATHE THE HANDS OF ATTENDANTS.

- No. 5. One pint Labarraque's Solution (chlorinated soda), in five pints of water.
 No. 6. Chloride of zinc 4 ounces.
 Rain water 1 pint.
 Sig.—Two tablespoonfuls of this to a pint of water.
 No. 7. Bi-chloride of mercury (corrosive sublimate) 1 ounce.
 Chloride of sodium (common salt) 3 ounces.
 Rain water 1 gallon.
 Misce.

THYMOL WATER.

Made by adding one tablespoonful Spirits Thymol to half a gallon of water. Spirits of Thymol is composed of—

- Thymol 1 ounce.
 Alcohol, 85 per cent 3 ounces.

May be used for all the disinfectant purposes of carbolic acid; it is quite as efficient in this strength, and has an agreeable odor.

TO REMOVE BAD ODOR FROM RAIN WATER.

- No. 8. Permanganate of potash 1 drachm.
 Rain water 1 gallon.
 Misce.

Sig.—Stir some of this solution in the offensive smelling water.

There is no better disinfectant for any purpose than this solution of permanganate of potash; the only possible objection to its use is its purple stain.

All cases of contagious or infectious disease should at once be put under the care of an intelligent, competent physician, and *immediately* reported to the Secretary of the Board of Health within whose jurisdiction the patient is situated.

Health officers will please see that a copy of this Circular is placed in every family where Infectious or Contagious Diseases are prevailing.

By order of the State Board of Health.

E. S. ELDER, M. D.,
Secretary and Executive Officer.

Copies of this Circular can be obtained by applying to the Secretary of the State Board of Health.

TABLE NO. 1.

Table No. 1, showing total number of deaths occurring in the State of Indiana, arranged by classes, order, months, sex and color, with totals and rate per cent. to total mortality for the year ending September 30, 1883.

TABLE No. I.

CLASS I.—ZYMOTIC DISEASES.

Showing total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex, and Color, with totals and rate per cent. to total mortality, for the year ending Sept. 30, 1883.

CLASS ONE. ZYMOTIC DISEASES.	1882.												1883.						Grand total.	Total per cent. of each Cause to Total Mortality.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	October.			November.			December.			January.			February.			March.					April.			May.			June.			July.			August.			September.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

Gangrene.	5	1-	4	2	2	2	2	1	2	5	2	2	16	32	1	33	29
Mexico.	6	6	4	5	14	23	22	16	2	2	2	2	88	17	1	140	28
Mumps.	9	10	8	14	24	25	9	23	11	28	2	2	93	52	1	108	48
Pertussis.	5	10	8	14	24	25	9	23	11	28	2	2	93	173	10	183	122
Scabies.	9	10	8	14	24	25	9	23	11	28	2	2	93	173	10	183	122
Scarl-pox.	9	10	8	14	24	25	9	23	11	28	2	2	93	173	10	183	122
Septicæmia.	1	1	13	19	19	39	4	5	4	22	13	9	121	62	51	213	142
Urticaria.	1	1	4	3	6	1	4	5	4	2	2	9	31	40	40	40	27
Grand total.	434	278	234	202	201	224	226	163	476	486	1,709	1,841	3,405	145	3,550	23,672	
ORDER TWO—ENTHETIC.																	
Syphilis.	2	1	4	1	3	1	2	1	3	1	10	9	17	2	19	13	
Total.	2	1	4	1	3	1	2	1	3	1	10	9	17	2	19	13	
ORDER THREE—DINETIC.																	
Delirium tremens.	4	4	11	4	1	2	2	25	1	2	18	18	17	1	18	12	
Insanition.	22	12	10	4	10	25	19	9	27	19	100	98	179	14	183	129	
Intemperance.	1	1	2	2	3	3	1	5	5	5	31	31	31	21	21	21	
Purpura.	2	1	4	2	1	4	1	3	3	1	9	9	18	18	18	12	
Total.	29	16	14	13	8	14	25	29	37	25	158	102	245	15	260	174	
ORDER FOUR—PARASITIC.																	
Apathæ.	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	.01	
Elephantiasis.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.02	
Thrush.	1	1	1	1	1	1	1	1	1	1	2	2	3	3	3	.08x	
Total.	2	2	1	1	1	1	1	1	1	1	4	2	6	6	6	.08x	
Grand total Zymotic Diseases.	465	294	249	209	255	259	251	178	523	501	2,003	1,813	3,673	162	3,816	25,572	
	2	1	4	3	3	1	1	2	1	1	9	10	10	19	19	19	
	467	295	253	217	255	260	251	180	524	504	2,012	1,823	3,673	162	3,835	25,572	

TABLE I.

CLASS III—LOCAL DISEASES.

Showing the total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex and Color, with totals and rate per cent. to total mortality, for the year ending September 30, 1883.

CLASS THREE, LOCAL DISEASES.	1882.			1883.									SEX.		COLOR.		Grand Total.	Total per cent. of Each Cause to Total Mortality.
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.		
ORDER ONE—NERVOUS SYSTEM.	9	12	16	11	19	18	18	13	16	17	12	10	97	74	166	5	171	1.14
Apoplexy.																		
Arachnitis.																		
Abscess of brain.		1		1				2				1	4	1	4	1	9	.08
Abscess of spine.																		
Brain fever.		1		1	4	3	6	4	1	4	4	5	18	15	31	2	33	.22
Brain, compression of.																		
Brain, congestion of.	21	9	17	10	11	11	18	14	11	25	27	17	115	70	187	6	193	1.24
Brain, disease of.		1	2				1	5	2		3	2	9	11	16	1	17	.11
Brain, effusion of.		3	2	4	1	1	1	1	1	1	7	1	14	9	22	1	23	.15
Brain, hemorrhage of.																		
Brain, hyperemia of.																		
Brain, inflammation of.	9	1	10	8	10	9	7	8	9	4	7	9	56	39	91	4	95	.63
Brain, paralysis.		1	1	3	3	5	3	6	3	3	5	2	30	15	45	2	45	.30
Brain, softening.	10		1	3	3	3	2		2	6	3	2	11	13	24		24	.16
Cerebritis.																		
Chorea.																		
Convulsions.				6	18	18	19	24	10	20	17	17	104	102	201	5	206	1.37
Epilepsy.	21	16	20	4	4	8	11	6	7		3	5	32	32	63		63	.42
Hemicrania.	2	4	4	4	4	4				1				1	1	1	1	.14

Insanity	126	113	127	96	125	144	157	144	120	136	143	134	840	719	1,512	53	1,559	10.40
Inflammation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.08
Locomotor ataxia	22	20	22	14	17	24	27	24	21	16	16	1	115	130	284	11	245	.07
Muscular atrophy	2	2	1	2	1	1	1	1	1	2	1	1	4	2	6	4	6	.03
Myelitis	2	2	3	1	1	1	1	1	1	2	1	1	4	11	15	1	15	.10
Neuralgia	2	2	3	1	1	1	1	1	1	2	1	1	4	11	15	1	15	.10
Nervous exhaustion	2	2	3	1	1	1	1	1	1	2	1	1	4	11	15	1	15	.10
Neuritis	2	2	3	1	1	1	1	1	1	2	1	1	4	11	15	1	15	.10
Paralysis	25	29	23	19	27	24	26	24	19	17	16	16	133	138	280	11	271	1.81
Spine, disease of	1	1	3	4	1	5	1	5	2	2	2	4	15	8	22	1	23	.02
Spine, congestion	1	1	3	4	1	5	1	5	2	2	2	4	15	8	22	1	23	.02
Stenosis of spinal cord	1	1	3	4	1	5	1	5	2	2	2	4	15	8	22	1	23	.02
Spasms	2	3	2	2	1	3	2	3	1	3	3	3	19	17	34	2	39	.03
Thrombosis cerebral	2	3	3	2	1	3	2	3	1	3	3	3	19	17	34	2	39	.03
Tetanus	2	3	3	2	1	3	2	3	1	3	3	3	19	17	34	2	39	.03
Tetanus nascentium	2	3	3	2	1	3	2	3	1	3	3	3	19	17	34	2	39	.03
Tumor of brain	2	3	3	2	1	3	2	3	1	3	3	3	19	17	34	2	39	.03
Total	126	113	127	96	125	144	157	144	120	136	143	134	840	719	1,512	53	1,559	10.40
ORDER TWO—CIRCULATORY.																		
Aneurism	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.05
Angina pectoris	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.05
Arteries, ossification of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.05
Arteries, inflammation of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.05
Blood vessel, rupture of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.05
Congestion	3	1	2	3	3	3	7	3	4	2	1	1	22	29	40	2	42	.28
Coronary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Endocarditis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Embolism	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Emorrhage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Hydropericardium	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Heart, abscess of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Heart, clot	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Heart, congestion of	13	14	16	14	18	15	22	15	13	14	13	7	91	90	175	6	181	1.21
Heart, disease of	13	14	16	14	18	15	22	15	13	14	13	7	91	90	175	6	181	1.21
Heart, dilatation of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Heart, fatty	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Heart, hypertrophy of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Heart, paralysis of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Heart, paralysis of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Heart, fibrillar dis. of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Pericarditis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Phlebitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Syncope	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.03
Total	43	33	44	39	36	44	50	41	35	34	44	27	233	237	453	17	470	3.14

TABLE No. I—Continued.

CLASS THREE—LOCAL DISEASES.	1882.			1883.							Sex.		Color.		Grand Total.	Total per cent. of Each Cause to Total Mortality.		
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.			White.	Colored.
ORDER THREE—RESPIRATORY.																		
Asthma	3	1	1	4	3	3	3	5	3	3	1	4	12	22	34	.22		
Apnea				1									2			.01		
Angina trachealis				1									1					
Bronchitis	11	14	30	29	46	34	36	26	16	9	13	17	136	145	260	1.87		
Catarrh, bronchial				1	2		1		1	1			3	4		.05		
Catarrh, capillary				1										3		.02		
Catarrh, senile					1									1				
Emphysema	2	1	1	2				3	1	1	1	1	3	3	6	.04		
Empyema														2				
Hydrothorax	1		1										6	3	9	.06		
Hæmoptysis													2	2	3	.02		
Lungs, abscess of			2	6	13	14	16	10	10	3	6	8	9	3	11	.08		
Lungs, congestion of	11	5	15	6	1		4	1	1	1		2	66	51	112	.78		
Lungs, disease of		1	1	1	1	8	4	1	1	1		2	9	12	21	.14		
Lungs, hepatization of			2	4			2	2	3	2	1	1	11	10	19	.14		
Lungs, hæmorrhage	4													2	2	.01		
Lungs, oedema of			2											1	1			
Lungs, ulceration of	1													1	1			
Larynxitis	10	11	12	3	6	4	4	3	2	1	3	5	38	26	64	.43		
Larynx, tumor of	1																	
Pneumonitis	42	58	113	174	179	208	163	90	62	21	26	34	671	489	1,160	7.73		
Pneumonitis typhoid	4	12	26	13	20	22	21	12	5	3	2	4	75	69	140	.97		
Pneumonitis pleuro	3	3	3	6	8	16	4	2	5	1			28	21	49	.33		
Pleurisy	1	1		1	1		3		1	1	3	2	13	1	19	.13		
Trachea, tumor of																		
Throat, ulceration of	1																	
Oedema of glottis				1		1			1				1		3	.02		
Total	95	107	215	253	285	310	261	158	102	51	57	80	1,093	881	1,983	13.16		

TABLE No. 1—Continued.

CLASS THREE—LOCAL DISEASES.	1882.			1883.								Sex.		Color.		Grand Total.	Total per cent. of each Cause to Total Mortali- ty.	
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.			Colored.
Stomach and bowels, disease of.																		
Stomach, hemorrhage of.			1		2	1				1	1	2	4	1	1	5	7	
Stomach, neuralgia of.		1	2		1				1				6	2	3	9	3	
Stomach, ulceration of.	1	1	1	4		2	3	2	3	1	3	2	17	2	24	30	24	
Stomach, tumor of.					1	1				1	1	1	3	2	4	6	5	
Spleen, disease of.				1				1	1				2	3	5	9	6	
Stomatitis.		1		1		2			1	2		2	4	5	12	19	10	
Tonsillitis.		1	3	1									7	2	9	13	8	
Total	72	75	72	58	51	66	60	71	56	77	132	104	465	428	893	30	536	
ORDER FIVE—URINARY SYSTEM.																		
Albuminuria.																		
Bladder, disease of.				1	1	1			1	4	3	3	7	7	14		.09	
Bladder, hemorrhage of.			1			2			1				1	1	2		.01	
Bladder, rupture of.												1	1	1	1		.01	
Bladder, tumor of.					1								1	1	1		.01	
Calculus.									1				3	1	4		.03	
Cystitis.									1		2	1	25	1	26		.17	
Diabetes.	4	3		1	2	1	2	3	3	3	4	5	24	15	39	1	.26	
Kidneys, abscess of.	6	3	5	5	2	1	2	3				1	4	4	8		.05	
Kidneys, disease of.				1								1	2	1	3		.02	
Kidneys, fatty of.							2	3				1	4	1	6		.05	
Kidneys, ulceration of.			1										1	1	2		.01	
Nephritis (Bright's disease).					1								1	1	2		.01	
Nephritis.					8	7	5	15	4	10	11	8	64	33	93	4	.65	
Prostatitis.	4	10	9	6	3	6	5	3	3	4	3	3	29	16	45	1	.30	
Urine, suppression of.	1	4	3	7	1	1	1	1	2	1			1	4	8		.05	
Urethra, stricture of.		1		2	1	1							1	1	3		.01	
Uremic poisoning.		1		1	1	2	2	3	5	3	4	4	17	15	32		.21	
Total	24	22	22	24	17	20	22	32	20	24	31	28	186	100	286	5	1.91	

TABLE No. I—Continued.

CLASS THREE—LOCAL DISEASES.	1882.			1883.									Sex.		Color.		Grand Total.	Total Per Cent. of each Cause to Total Mor- tality.	
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.			
ORDER NINE—MISCELLANEOUS.																			
Ear, inflammation of	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	..	1	..
Keratitis	..	..	..	..	1	1	3	4	3	3	1	1	4	15	17	..	1	2	..
Tumor	3	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	19	..
Total	3	..	..	..	1	1	4	4	3	3	1	1	5	16	18	3	21	..	..
Grand Total Local Diseases	378	357	437	475	522	597	568	461	347	336	416	380	2,863	2,461	5,122	202	5,324	..	35.49

TABLE No. I.

CLASS IV—DEVELOPMENTAL DISEASES.

Showing total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex and Color, with totals and rates per cent. to total mortality, for the year ending September 30, 1883.

CLASS IV—DEVELOPMENTAL DISEASES.	1882.			1883.									SEX.		COLOR.		Grand Total.	Total per cent. of each Cause to mortality.	
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.			
ORDER ONE—CHILDREN.																			
Atelectasis.	1	1					3				1	1	4	5		11	1	12	.08
Anus, imperfect.	17	14	24	24	27	15	24	22	12	19	31	16	139	106		241	4	245	1.63
Birth, premature.	8	3											5	3		10		10	.07
Birth, injuries.	68	63	65	68	82	72	76	75	62	59	53	62	472	328		771	29	800	5.33
Birth, still.	12	13	9	6	3	5	8	2	1	6	4	11	37	18		54	1	55	.37
Cyanosis.	1	1											5	5		46	1	47	.31
Debility in infantile.	1	2	4	2	2	1	1		4	3	1	3	13	6		19	1	20	.13
Malnutrition.																2		2	.01
Malformation.																			
Nursing sore mouth.													1	1		2		2	.01
Prolapsus funis.		1	1	1									3	3		6		6	.04
Spina bifida.	2	1	1	1									3	4		7	1	7	.04
Teething.			1	1	1	3		1	1	1	2	2	5	4		9	1	9	.06
Umbilical hemorrhage.																			
Umbilical cord, dis. of.																			
Total.	106	97	112	100	116	99	114	100	86	96	103	102	723	568		1,193	38	1,231	9.20x
ORDER TWO—WOMEN.																			
Amenorrhœa.			1											3		3		3	.02
Chlameria.																			.02

TABLE No. I—Continued.

CLASS IV—DEVELOPMENTAL DISEASES.	1882.			1883.									Sex.		Color.		Grand total.	Total per cent. of each Cause to Total Mortality.	
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.			
Child birth, accident at	3	3	3	2	3	5	1	2	3	2	4	6	3	. . .	37	37	. . .	37	25
Puerperal eclampsia	1	3	6	1	7	1	8	8	. . .	. . .	. . .	. . .	. . .	. . .	59	58	. . .	1	39
Puerperal hemorrhage . . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	3	3	. . .	. . .	3
Puerperal fever	7	5	9	9	7	10	4	9	3	5	13	2	. . .	. . .	73	71	. . .	2	49
Puerperal peritonitis . . . . .	. . .	. . .	2	2	. . .	2	2	1	8	2	1	1	. . .	. . .	21	21	. . .	. . .	14
Puerperal phlebitis . . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	1	1	. . .	. . .	1
Puerperal septicaemia	1	. . .	. . .	. . .	. . .	. . .	3	2	2	. . .	. . .	. . .	. . .	. . .	9	6	. . .	. . .	7
Post-partum hemorrhage . . . . .	. . .	. . .	. . .	1	. . .	. . .	2	2	2	1	2	1	. . .	. . .	10	9	. . .	1	7
Parturition	1	1	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	. . .	3	3	. . .	. . .	3
Pelvic abscess . . . . .	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	4	4	. . .	. . .	2
Pelvic cellulitis . . . . .	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1	. . .	. . .	3
Uterine hemorrhage . . . . .	. . .	. . .	4	2	2	2	1	1	. . .	. . .	. . .	. . .	. . .	. . .	12	10	. . .	2	6
Total	13	12	20	27	19	20	24	25	15	21	20	16	. . .	236	236	. . .	6	158	
ORDER THREE—OLD AGE.																			
Old age	22	22	19	26	29	32	26	16	14	26	19	23	127	147	. . .	. . .	274	183	
ORDER FOUR—NUTRITION.																			
Asthenia . . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	3	2	4	6	. . .	. . .	.04	
Debility	10	11	8	10	13	16	12	9	15	16	13	14	80	67	140	7	147	.98	
Exhaustion	2	4	. . .	5	4	3	2	2	2	2	3	2	19	12	31	. . .	31	.20	
Imperfect nutrition . . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	3	2	1	3	. . .	3	.02	
Marasmus	4	1	5	3	2	4	7	4	1	2	6	3	20	22	42	. . .	42	.28	
Total	16	16	13	18	19	23	21	15	18	21	26	23	123	106	222	7	229	152	
Gr'd total developmental diseases	157	147	168	171	183	174	185	156	133	164	168	164	973	997	1,912	57	1,970	13.13	

TABLE No. I.

CLASS V—VIOLENCE, ACCIDENTS, AND NEGLIGENCE.

Showing total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex, and Color, with totals and rate per cent. to total Mortality, for the year ending September 30, 1883.

CLASS FIVE—VIOLENCE.	1882.			1883.									Sex.		Color.		Grand Total.	Total per cent. of each Cause to Total Mortality.	
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Females.	White.	Colored.			
ORDER ONE—ACCIDENTS AND NEGLIGENCE.																			
Abortion	1	3	1	1	1	1	1	1	3	1	7	3	27	9	6	9	37	6	.06
Asphyxia	3	7	9	4	4	4	4	4	3	13	12	9	79	17	39	12	2	.29	
Accident	6	1	1	1	1	1	1	1	6	3	2	1	2	3	3	96	96	.64	
Amputation of leg	1	1	1	3	3	3	1	5	4	1	1	1	3	23	34	3	3	.10	
Burns	4	2	7	4	3	1	1	1	1	1	1	1	12	1	1	1	1	.02	
Blow on abdomen	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.02	
Crushed by saw log	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.02	
Caving in of sand bank	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.02	
Caught in machinery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.02	
Concussion of brain	1	3	3	6	2	1	1	9	17	15	4	5	69	1	6	69	1	.57	
Drowned	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.02	
Drinking concentrated lye	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.02	
Explosion of gunpowder	2	1	1	2	2	1	1	1	1	1	1	1	1	2	2	1	2	.04	
Exposure to cold	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	.04	
Foreign body in bronchia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.01	
Foreign body in trachea	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.01	
Fall	1	2	2	1	1	2	1	3	4	1	1	1	11	3	14	3	1	.04	
Falling tree	1	1	1	2	1	2	1	1	1	1	1	1	4	2	2	2	2	.04	

Poison by colored paper	47	47	52	48	39	49	44	54	56	54	71	45	480	126	575	31	606	4.04
Poison by laudanum				1														
Poison by morphine				1														
Poison by opium	1		1						2	3			1	4	8	2	10	.07
Poison by patent medicine								1		1			1	1	1		1	.03
Poison by rat medicine													1	1	1		1	
Poison by spirits of turpentine													1		1		1	
Poison by white lead													1		1		1	
Total	47	47	52	48	39	49	44	54	56	54	71	45	480	126	575	31	606	4.04
ORDER TWO—HANGING, JUDICIAL EXECUTION.																		
Hanging						1					1		2		2		2	.01
ORDER THREE—HOMICIDE.																		
Homicide	3	2	1	1			2		1	5	6	2	19	3	20	2	22	.15
Infanticide	1														3		3	.02
Killed by a mob	1				1										2		2	.01
Pistol shot					1										1		1	
Shot while attempting to lynch a prisoner	1														1		1	
Stabbed in thigh						1							1		1		1	
Stabbed in head									1	1			2		2		2	.01
Wound in head																		
Total	6	2	2	1	2	1	2		2	6	6	2	26	6	30	2	32	.19
ORDER FOUR—SUICIDE.																		
Suicide by cutting throat					1	5	6	1	1	5	6	6	28	8	35	1	36	.24
Suicide by drowning						3	2			1	2		8		7	1	8	.06
Suicide by gunshot		1						1		1			2	1	3		3	.03
Suicide by hanging													5		5		5	.03
Suicide by opium	2	1	1	1	1	1	1	7		1	1	1	14	4	18		18	.12
Suicide by pistol shot	1							2	2	1	1	1	1	2	2	1	3	.02
Suicide by poison	1	2	1		1	1	1	1		1	1		6	3	9		9	.06
Suicide by strangulation			1				7	3					5	12	17		17	.11
Total	4	4	3	6	8	11	17	20	3	10	11	8	69	31	97	3	100	.66
RECAPITULATION.																		
Accidents and negligence	47	47	52	48	39	49	44	54	56	54	71	45	480	126	575	31	606	4.04
Judicial execution						1				1			2		2		2	.01

TABLE No. I—Continued.

CLASS FIVE—VIOLENCE.	1882.			1883.									Sex.		Color.		Grand Total.	Total per cent. of each Cause to Total Mortality.
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.		
Homicide.	6	2	3	1	2	1	2	2	3	6	6	2	26	6	30	2	32	.01
Suicide.	4	4	3	6	3	11	17	20	3	10	11	8	69	31	97	3	100	.86
Total in Class No. 5	57	53	57	55	44	62	63	74	61	71	88	55	577	163	704	36	740	4.93
Class 6, unclassified	52	37	33	33	40	47	40	57	32	50	54	44	237	279	485	31	516	3.44
Grand Total	109	90	90	88	84	109	103	131	93	121	142	99	814	442	1,189	67	1,256	8.37

TABLE No. I.

RECAPITULATION.

Showing total number of Deaths occurring in the State of Indiana, by Classes, Orders, Month, Sex and Color with totals and rate per cent. to total mortality, for the year ending September 30, 1883.

RECAPITULATION.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Sex.		Color.		Grand Total.
													Male.	Female.	White.	Colored.	
Miasmatic	434	278	234	202	201	241	224	226	163	385	486	476	1,841	1,709	3,405	145	3,550
Ethereal	2	1	4	1	3	1	1	1	2	1	1	3	9	10	17	2	19
Dietic	29	16	14	13	8	14	34	25	15	29	37	25	158	102	245	15	260
Parasitic	2	...	1	1	...	...	1	...	...	1	...	...	4	2	6	...	6
Total Zymotic	467	295	253	217	212	255	260	251	180	416	524	504	2,012	1,823	3,673	162	3,835
Diathetic	37	41	37	44	41	45	34	50	42	39	54	49	245	268	500	13	513
Tubercular	137	149	152	138	150	192	215	209	185	163	143	184	854	1,173	1,875	152	2,027
Total Constitutional	174	190	189	182	191	237	249	259	237	202	197	233	1,099	1,441	2,375	165	2,540
Nervous system.	126	113	127	95	124	143	157	144	120	135	142	133	840	719	1,512	53	1,559
Circulatory	43	33	44	39	36	44	50	41	35	34	44	27	233	237	453	17	470
Respiratory	95	107	215	253	285	310	261	158	102	51	57	80	1,093	981	1,883	91	1,974
Digestive	72	75	72	58	51	66	60	71	56	77	132	103	465	428	858	30	893
Urinary	24	22	22	24	17	20	22	32	20	24	31	28	186	100	280	5	286
Generative	6	2	4	4	3	4	2	4	4	5	5	3	2	6	49	1	50
Osseous and locomotory	2	1	1	1	3	...	2	...	...	2	...	1	3	4	12	1	13
Integumentary	2	1	1	1	2	9	6	7	7	3	...	4	32	28	57	1	58
Miscellaneous	3	...	...	...	1	1	4	4	3	3	1	1	5	16	18	3	21
Total Local	378	357	487	475	522	597	568	461	347	336	416	390	2,863	2,461	5,122	202	5,324

TABLE No. I—Continued.

RECAPITULATION.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	SEX.		COLOR.		Grand Total.
													Male	Female.	White.	Colored.	
Children	108	97	112	100	116	99	114	100	86	96	103	102	723	508	1,193	38	1,231
Women	13	12	14	27	19	26	24	26	15	21	20	15	298	298	298	6	298
Old age	22	22	14	24	23	32	26	13	14	24	19	23	127	147	267	7	274
Nutrition	16	16	13	18	19	23	21	15	18	21	26	23	123	106	222	7	229
Total Developmental.	157	147	168	171	183	174	185	156	133	164	168	164	973	997	1,912	58	1,970
Accidents and negligence	47	47	52	48	39	49	44	54	56	54	71	45	480	126	575	31	608
Judicial execution	6	6	2	1	1	1	2	2	2	6	6	2	26	3	2	2	2
Homicide	4	4	2	6	3	11	17	30	3	10	11	8	69	31	97	9	109
Suicide	52	37	32	33	40	47	40	57	32	50	54	44	237	279	485	31	516
Unknown	109	90	90	88	84	109	103	131	93	121	142	99	814	442	1,189	67	1,256
Total Violence, etc.	467	295	253	217	212	255	280	251	180	416	524	504	2,012	1,923	3,673	162	3,885
Zymotic diseases	174	190	189	182	191	237	249	259	237	202	197	233	1,099	1,441	2,375	165	2,540
Constitutional diseases	378	357	487	475	522	597	568	461	347	336	416	380	2,862	2,462	5,122	202	5,394
Local diseases	157	147	168	171	183	174	185	156	133	164	168	164	973	947	1,912	58	1,970
Developmental diseases	57	53	57	55	44	62	63	74	61	71	88	55	577	163	740	740	740
Violence and accidents.	52	37	33	33	40	47	40	57	32	50	51	44	217	279	496	516	516
Unknown	1,283	1,079	1,187	1,133	1,192	1,372	1,365	1,258	990	1,229	1,444	1,380	7,760	7,165	14,271	654	14,925
Grand Total	1,283	1,079	1,187	1,133	1,192	1,372	1,365	1,258	990	1,229	1,444	1,380	7,760	7,165	14,271	654	14,925

TABLE NO. 1.

CLASS 1.

ZYMOTIC DISEASES.

Let us examine some of the principal causes of death from zymotic diseases. Six deaths are reported from *carbuncle*, being the same number as last year. From *choleraic diarrhea* and *cholera morbus* we have twenty-four deaths, or .15 per cent. of the total mortality, against forty-four deaths, or .27 per cent. of total mortality last year. *Cholera infantum* caused five hundred and twenty deaths, or 3.49 per cent. of the total mortality, against seven hundred and eighty-six deaths, or 5.18 per cent. of total mortality the year before. These two diseases depending so largely upon unhygienic surroundings and hot weather were doubtless modified by the cool summer of 1883, and we hope that improved hygienic conditions did its share. *Congestive chills* killed forty-six persons, or .30 per cent. of the total mortality, against a loss of forty-four lives, or .27 per cent. of last year's mortality. *Croup* cost two hundred and two children their lives, 1.35 per cent. of the year's mortality, while last year only one hundred and thirty-six died from it, or .89 per cent. of the total mortality, an increase this year of .46 per cent. of total mortality. The open, wet winter and the great floods of the spring no doubt increased this malady. However, a peculiar coincidence, is an increase in *diphtheria*, viz.: A mortality of three hundred and nine, or 2.07 per cent. of the total mortality, against two hundred and fourteen, or 1.41 per cent. of total mortality last year, an increase of .66 per cent. of total mortality. This confirms me in the belief taught by many of our most recent pathologists, viz.: The identity of the two maladies *true croup* and *diphtheria*. It is earnestly desired that physicians, parents and nurses appreciate the fact, that very much that is denominated *croup* is a dangerous, contagious, infectious, zymotic disease; and the same careful prophylactic measures should be adopted in cases of this disease as are recommended in diphtheria. In consequence of the non-observance of these precautions, the spread of the malady and the loss of valuable lives are not unfrequent.

DIPHTHERIA.

As before stated, *diphtheria* prevails in fifty-one counties, with seven hundred and twenty-seven reported cases, with three hundred and nine deaths, or 2.07 per cent. of the total mortality, against two hundred and fourteen, or 1.41 per cent. last year.

This disease is one that enforces increasing attention, and is one of the most insidious, dangerous and infectious that we are forced to contend with, and one that depends largely upon local surroundings for its propagation, and unhygienic influences for its virulence. We find that it is a potent cause of death in all countries. In Russia, in some districts, it is endemic, and thousand of children are swept away with it amid the filth, squalor, wretchedness and ignorance of the peasantry. In some districts nearly *all* children under ten years of age lose their lives during waves of this disease. Throughout the United States during the year 1880 no less than *thirty-eight thousand three hundred and ninety-eight* lives were lost by *diphtheria*, a mortality of 5.07 per cent. of the total mortality; 52.3 per thousand of all reported deaths. In the city of New York, *eight thousand three hundred and seventy-two* lives were lost by it from 1874 to 1880. In Brooklyn, *six thousand nine hundred and four* during the same time, and other cities in like manner. The disease appears to be increasing all over our country and in all parts of the world. Why such a condition of things should exist is a problem for the sanitarian. This disease should be shorn of its terrors. My own opinion is, that a very general want of appreciation of its dangerous, infectious character exists.

Thus, in Russia no provision for isolation, seclusion or disinfection prevails. The priest takes the consecrated wafer from the lips of the dying and dead, and places it upon the tongue of the living. In our own country the utmost carelessness in

regard to its infection prevails. Less than three years ago, in the city of Indianapolis, an intelligent minister of the gospel called the children of a private sectarian school around the open coffin of a child dead from diphtheria, and, after marching around the same for a few minutes, they all kissed the poisonous lips of the child. In a southern county of the State a like occurrence took place at a public funeral, and twenty cases of diphtheria among the school children was the penalty.

There are many physicians practicing medicine in Indiana to-day who deny the contagious and infectious character of this disease. Recognizing this fact, and in order to secure reliable data, the following blank was sent to the health officers in the counties reporting deaths from diphtheria:

INDIANA STATE BOARD OF HEALTH.

Secretary's Office, 20 and 21 Masonic Temple, Indianapolis.

REPORT ON DIPHTHERIA.

By.....M. D.,
.....Ind.

DEAR DOCTOR: Since October 1, 1883, the Board of Health of your county has reported — deaths from diphtheria having occurred in the county. Recognizing this disease as a zymotic one, belonging to the preventable class, and largely due to unhygienic influences, in order to more completely protect the public against future outbreaks of this malady, I am anxious to ascertain all the facts in connection with its occurrence and prevalence in this State. Will you be kind enough to furnish me with the history of the disease as it occurred in your locality. In order to secure a uniformity of reports and detailed information, will you please use this blank, returning the same to me in the enclosed addressed envelope, not later than the 25th of this month.

E. S. ELDER, M. D.,

Secretary and Executive Officer.

Question 1. How many cases of the disease occurred in your county?.....

Question 2. How many deaths?.....

Question 3. How did the disease originate?.....

Question 4. How was it spread?.....

Question 5. Were there any evidences of its contagiousness?.....

Question 6. How many cases in each family?.....

Question 7. Was isolation and disinfection resorted to?.....

Question 8. Can you give any cause for the outbreak and spread of the disease?.....

Question 9. Were the funerals of persons dead from diphtheria public?..... Were the coffins opened after the bodies had been placed in them?.....

Question 10. Give any other information you may deem pertinent?.....

Returns on this subject have been received from twenty-seven counties, and are printed with this report:

REPORT ON DIPHTHERIA.

BY J. S. ARWINE, M. D., COLUMBUS, IND.

1. Seven.
2. Seven.
3. Reported unknown.
4. No spread of the disease; only two cases in one family in the city of Columbus.
5. None manifested, yet ordinary care was observed, by isolation only.
6. Two in one, and one only in the other family.
7. It was only partially, so far as the families were concerned; perfect so far as neighbors.
8. No; reported unknown by the several physicians.
9. I think so.—I do not know, but think not.
10. I have none. So far as I can learn the above embodies the facts.

REPORT ON DIPHTHERIA.

BY J. S. MAVITY, M. D., FOWLER, BENTON COUNTY, IND.

1. Eleven.
2. Five.
3. In two cases disease was contracted by nursing scarlatina, and in two by infection; in seven, cause not given.

4. It can not be said to have spread, except in the manner indicated in answer to question 3, or by coming into close proximity to persons infected with the disease.

5. No positive evidence, but in families where one or two had diphtheria, others would show symptoms, but there was evidence that adults contracted disease by nursing scarlet fever cases.

6. Three families, two cases each; eight families, one case each.

7. Yes; in every case that came under my observation, and in all cases coming under other local boards.

8. I can not, except it be from atmospheric influences and sudden changes of temperature.

9. No.—No.

10. After a close observation in the last seven years in this county, there has not been found any epidemic of diphtheria, where the cases have spread by contagion, as scarlet fever and measles have done, but most cases have been sporadic, and as a rule one case in each family. The further spread of the disease may have been prevented by isolation and disinfection, which has always been vigorously enforced whenever possible.

REPORT ON DIPHTHERIA.

BY E. WALKER, M. D., DELPHI, IND.

1. Six.

2. Five.

3. In one family two deaths reported; illness occurred after a visit to Cincinnati. Others not reported.

4. By contact with others having the disease, so far as known.

5. Yes. In many cases reported as diphtheria, probably only sore throat was the trouble. No evidence of infection.

6. Two in one family only. All the rest one in each.

7. Yes. Soon as known.

8. None, except two children, both dying in one family, immediately after a return from a visit to Cincinnati.

9. No.—No.

10. I think some reports are made by physicians of cases of simple laryngitis or pharyngitis, without any malignity whatever.

REPORT ON DIPHTHERIA.

BY HENRY GERS, M. D., WASHINGTON, IND.

1. Sixteen reported.

2. Eight.

3. Unknown.

4. By contact, presumably.

5. Yes, in three deaths reported.

6. Unknown.

7. Yes, in the five cases heard from.

8. Spread by contact, or neglect of isolation in season.

9. Two were public; one private; balance unknown. Unknown.

11—BD. HEALTH.

REPORT ON DIPHTHERIA.

D. J. SCHWARTS, M. D., AUBURN, IND.

1. Not known.
 2. Two reported.
 3. Not known.
 5. Only from contact, so far as I know.
 6. Frequently more than one.
 7. To some extent.
 8. No.
 9. No.—I think not.
 10. I have indirect knowledge that one fatal case (Naso-pharyngeal) was the last in a family of several children, who had been having a mild form of "sore throat" for several weeks.
-

REPORT ON DIPHTHERIA.

J. M. GRAY, M. D., NOBLESVILLE, IND.

1. Nineteen.
 2. One.
 3. Endemic from atmospheric and water contamination.
 4. Was not spread.
 5. None.
 6. Two at most.
 7. Yes.
 8. None save that of peccant water or bad atmosphere.
 9. No.—No.
-

REPORT ON DIPHTHERIA.

BY LEROY H. KENNEDY, M. D., DANVILLE, IND.

1. Sixteen.
2. Five.
3. Sporadic.
4. Did not spread.
5. None given.
6. Five families, one case each; four to seven in each family; two cases in one family of ten, two in family of seven; the others not reported.
7. I furnished flags with instructions, which I think were complied with, but have no reports on that subject.
8. No.
9. No report.—No report.
10. A special blank should be furnished physicians including all these questions.

REPORT ON DIPHTHERIA.

BY T. W. GRONENDYKE, M. D., HENRY COUNTY, IND.

1. Seventeen.
2. Six.
3. Don't know, except in two families; there it was caused by poor sanitary regulations.
4. Did not spread; was prevented by isolation, the use of disinfectants, fumigations, and general cleaning up of infected premises.
5. Yes, in two instances; in one family seven children had it during forty days' time; the physician and lady nurse both contracted the disease.
6. Seven, six, two, one, one. I think in two families the cases were sporadic.
7. Yes, in every case; and I am entirely satisfied that in that way we prevented a serious epidemic in November, 1882, and in August and September of 1883. It appeared at each of these dates in a severe, malignant form.
8. In one case, where there were seven cases in one family, it was thought to be caused by throwing slops and dishwater from kitchen among rank weeds only a few feet from residence while the weather was quite hot.
9. Yes. No, not at cemetery.
10. Keep clean; keep your premises clean; have your neighbors do so; use only pure water and wholesome food; dress comfortably, and we will not have much diphtheria.

REPORT ON DIPHTHERIA.

BY J. M'LEAN MOULDER, M. D., KOKOMO, IND.

1. Can not state.
2. Four.
3. Sporadic in every instance.
4. Did not spread.
5. None; because great care was taken in every case to prevent it spreading.
6. One.
7. It was, according to the suggestions under question No. 10.
8. None, as all the cases that have occurred in my county have been sporadic; and the disease has been confined to the house when the cases have occurred.
9. No. I think not.

REPORT ON DIPHTHERIA.

BY LAGRANGE SEVERANCE, M. D., HUNTINGTON, IND.

2. Four.
3. Sporadically. The cases could not be traced to others as a cause.
4. The cases were all isolated, occurring in different parts of the county.
5. None, only one case occurring in a family.
6. One.
7. Vessels used by the patient in eating and drinking were kept from other members of family until cleansed.
8. No.
9. Yes. Not known.
10. There has been very little diphtheria in the county for the last few months, and the cases reported at a distance from one another, and generally of a mild form.

REPORT ON DIPHTHERIA.

BY M. L. BOAZ, M. D., BROWNSTOWN, IND.

1. Three.
 2. Three.
 3. Spontaneous.
 4. Did not spread.
 5. In the case of my practice (one case in Brownstown) tracheotomy was performed late; death in fourteen hours after operation. There was no evidence of contagiousness.
 6. One.
 7. Yes; in two cases. Don't know as to the other, but suppose it was.
 8. No.
 9. One was.—No.
 10. The case of mine occurred in one of the best families in the country, where hygienic regulations were perfect.
-

REPORT ON DIPHTHERIA.

BY J. T. JONES, M. D., FRANKLIN, IND.

1. Twenty-four.
 2. Nine.
 3. Dr. Spees, of Glenn's Valley, reported the first case as having originated in Boone county, Ind., and from that the other cases in the north part of the county originated, being a large majority of the cases.
 4. Most reported by contagion, especially those in White River and Pleasant township. Several cases occurred at Edinburgh; reported unknown.
 5. So reported; in one family six cases occurred; the first was brought from Boone county, and from that to five others of the same family.
 6. Six in one, two in another; the remainder a single case in the family.
 7. I do not know. I wrote to Dr. Spees and others immediately on receipt of your circular, but have received no answer.
 8. None, with the exception of Dr. Spees' cases, but suppose that the others originated from them.
 9. I can't say.—Don't know.
 10. I think it possible that some of the twenty-four cases reported were not diphtheria, but some simple inflammation of the throat; but they are reported as diphtheria, and I report so to you.
-

REPORT ON DIPHTHERIA.

BY M. G. BLISS, M. D., CROWN POINT, IND.

1. Fifty-four, as reported.
2. Nineteen.
3. Am unable to say, any further than it prevailed mostly in that portion of the county where the water remains near the surface most of the year.

4. Can not say; those that were kept away from those that were infected, were as liable to be stricken down as those that did not.

5. Those cases that came under my observation there were none. Other physicians in this county think differently.

6. 2, 1, 1, 1, 2, 2, 5, 3, 1, 2, 8, 6, 1, 1, 1, 1, 3, 3, 1, 1, 1, 2 and 2.

7. In most cases it was.

8. We can not, farther than in our opinion; too much surface water. When the county becomes properly drained, think we will have very little diphtheria.

9. No.—No.

10. Cases of diphtheria occurred in families where good hygienic conditions prevailed. In households of numerous children only one of the family would be attacked.

REPORT ON DIPHTHERIA.

BY HORACE E. JONES, M. D., ANDERSON, IND.

1. Twenty-eight.
2. Fifteen.
3. Not absolutely known.
4. Not clearly made out.
5. No positive evidence of its contagiousness has been reported.
6. From one to six.
7. In all cases so far as is known.
8. I can give no cause.
9. Public.—Frequently they were.
10. No doubt but that diphtheria will prevail.

REPORT ON DIPHTHERIA.

BY J. A. HATCH, M. D., KENTLAND, IND.

1. Seven.
2. Four.
3. Cause of disease not given.
4. Not given.
5. None, except three in one family affected.
6. Four families, one each; one family, three.
7. Only in the family where three were affected.
8. No.
9. Yes.—Do not know.

REPORT ON DIPHTHERIA.

BY T. E. ALDEN, M. D., RISING SUN, IND.

1. Six.
2. None.
3. Unknown.
4. Probably by contagion, though not absolutely proven.
5. There was, for those affected had interchanged visits.
6. In two families two cases each, in two others but one case.
7. Yes, but not absolute.
8. No.

REPORT ON DIPHTHERIA.

BY S. H. PEARSE, M. D., MT. VERNON, IND.

1. Two.
2. Three.
3. Not known.
4. There was no spreading.
5. No.
6. One.
7. No.
9. Yes.

10. I do not believe there has been a single case of genuine diphtheria in the county the past year. The cause of death was given as reported, but not a second case. I think they get the wrong name.

REPORT ON DIPHTHERIA.

BY JOHN E. MARKLE, M. D., WINCHESTER, IND.

1. Thirty-three.
2. Nine.
3. It originated from decayed vegetables and water impregnated with animal matter.
4. By contact.
5. Yes.
6. Three was the most in any one family.
7. They were.
8. I believe the outbreak due to foul, stagnant water, from defective drainage permitting soil-saturation with unwholesome fluids, and the same fluids finding their way into wells.
9. No.—No.

10. In three houses decayed vegetables were found, which were removed. I would not say that all the thirty-three cases reported were true diphtheria. Physicians err in diagnosis some times.

REPORT ON DIPHTHERIA.

BY JAMES ANDERSON, M. D., VERSAILLES, IND.

1. Twenty-five.
2. Nine.
3. Unknown by medical attendant.
4. Apparently by endemic influence.
5. Generally more than one of a family would have it.
6. From one to five.
7. They were not.
8. I can not say.
9. Yes. I can not trace any cases from attending any funerals.—No.
10. Persons of the same family in attendance on patient were liable to contract the disease; visitors were not. Where the disease was worst the hygienic conditions were bad. Most of the fatal cases were complicated with croup.

REPORT ON DIPHTHERIA.

BY J. F. MADDOX, M. D., SHELBYVILLE, IND.

1. Ten for '83 to date, December 18.
2. Four.
3. Zymotic. In the city, I think, as the result of those shallow wells and no drainage from them.
4. By contact; in one locality, carelessness on the part of the physician.
5. Only the above.
6. One family, three; one, two; others, one.
7. Yes, as soon as I learned of them.
8. All of the locality I have examined, and find they have either damp cellars or shallow wells with no drainage from them, allowing water to escape by natural drainage.
9. Yes.—In one case.

REPORT ON DIPHTHERIA.

BY W. W. HITCHCOCK, M. D., SOUTH BEND, IND.

1. Nine.
2. Three.
3. Endemically in most instances; contracted in four cases.
4. As near as can be ascertained by non-use of disinfectants; in several instances irregular physicians not advising patients in this regard.
5. Yes.
6. Two cases in one family.
7. In but few cases. I have repeatedly recommended through the press, and given directions for use, disinfectants; but this is of no avail where families rely wholly for their information on what is recommended by their family doctor, who, in many instances, knows nothing about it himself, there being no law regulating the practice of medicine in this State, and where any one may practice by paying the regulation fee of ten cents legalizing him to practice medicine.
8. Bad sanitary surroundings, non-use of disinfectants, poor drainage, and carelessness in reference to isolation of patients, public burials, etc.
9. Yes; all.—In some instances.

REPORT ON DIPHTHERIA.

BY L. M. IRWIN, M. D., LAFAYETTE, IND.

1. Four.
2. None.
3. None can tell.
4. Supposed to be by infection.
5. Yes; the fact that three in the same family were affected, was an evidence of its contagion.
6. Three in one, and one in another.
7. It was.
8. Can not. They were all in nice families and supposed to be in good hygienic surroundings.

REPORT ON DIPHTHERIA.

BY GEO. B. WALKER, M. D., EVANSVILLE, IND.

1. Fifteen.
 2. Nine.
 3. At home, two; not reported, thirteen.
 4. Not reported.
 5. Not reported.
 6. Not reported.
 7. Not strictly.
 8. Can not, other than atmospheric.
 9. Frequently.—Sometimes.
 10. The disease has not tended to become epidemic, with little or no appearance of being contagious.
-

REPORT ON DIPHTHERIA.

BY J. R. CRAPO, M. D., TERRE HAUTE, IND.

1. But four reported as contagious diseases, and seven deaths.
 2. Seven.
 3. Unknown.
 4. Unknown.
 5. No.
 6. All single cases, but in one family, where there were two cases.
 7. Yes.
 8. Can not; cases occurred at different times, and in different localities.
 9. Yes.—No.
-

REPORT ON DIPHTHERIA.

BY S. W. DUFF, M. D., SALEM, WASHINGTON COUNTY, IND.

1. Twenty-nine since October 1, 1882.
2. Eleven since October 1, 1883.
3. Don't know; I will explain more fully in my letter.
4. It spread among children like an epidemic of cholera. I will refer to this also in my letter.
5. Yes.
6. Don't know.
7. Where it could be done conveniently the children were isolated. Disinfection to a limited extent in almost all cases.
8. I can give no cause for the outbreak; I believe it spread mostly by contagion. We have two doctors who do not believe so.
9. They were.—Yes.
10. The disease was mostly confined to children; children were generally excluded from funerals.

REPORT ON DIPHTHERIA.

BY JAS. F. HIBBERD, M. D., RICHMOND, WAYNE COUNTY, IND.

1. Twenty-eight.
2. Eighteen.
3. Unknown.
4. There has been no epidemic.
5. Yes, so far as several cases in one family is such evidence, but agues and bad colds often occur in members of the same family about the same time.
6. In one, four cases; in three families, three cases each; in one, two cases; in all other families, one case each.
7. No reports are made to this office on this head.
8. No.
9. No reports.—I think not.
10. Public funerals are forbidden, and, where observation has been made, have not taken place. The above is from the record ending with September 30, 1883 for one year.

REPORT ON DIPHTHERIA.

BY D. M. MARSHALL, M. D., COLUMBIA CITY, IND.

1. Three.
2. Three.
3. I don't know; these cases were under my predecessor, and I find no record in reference to it.
4. I made inquiry of Dr. Lawrence, and he made no effort to ascertain the cause.
5. I judge not. I see there was only one in each family; two at Churubusco and one here.
6. Not reported.
7. Don't know.
9. Can't state.
10. I tried to ascertain, but could not do so.

These reports are valuable and instructive, and conclusively establish the fact that where rigid disinfection, isolation, and other precautionary measures were adopted, and the dangerous, infectious character of the disease appreciated, it was promptly checked, and it is gratifying to know that so many county health officers indicate their conception of its malignancy. If all physicians and parents recognized in *every* case of diphtheria a potent cause of danger, and a center of infection, and would adopt measures to prevent its spread, the mortality from it would be largely reduced. We publish an article on it by J. McLean Moulder, M. D., health officer of Howard county. Sententiously we add: *Diphtheria is a dangerously infectious and contagious disease. No case is mild enough to be*

neglected, or is free from danger. Every case should be isolated and the utmost care taken to prevent the spread of the disease. All the discharges and excretions should be disinfected and destroyed. The air of the sick-room should be kept pure by free ventilation. Burials of patients should not be attended by children. The corpse should be placed in the coffin as early as possible and the coffin never opened. Beds, clothing and furniture in the sick-room should all be thoroughly fumigated and disinfected. (For full directions regarding disinfection see page 127.)

Cleanliness, disinfection and isolation are invaluable weapons in the hands of physicians and sanitarians in combating this malady, and with them they should be able successfully to contend against, arrest and overcome the progress of this dangerous foe to the lives of the children of our land.

INTESTINAL DISEASES.

Diarrhea, Dysentery, Enteritis, Entereo-Colitis, Gastro-Enteritis, and Inflammation of the Bowels, caused during the past year, the death of five hundred and twenty-nine persons, or 3.54 per cent. of the total mortality, against a mortality of seven hundred and twenty-five, or 4.11 per cent. of the total mortality last year. This decrease in these intestinal diseases, I consider due to the cool summer of 1883, although it was the experience of many physicians that a tendency toward choleraic diarrhea existed during July and August.

ERYSIPELAS.

This presents eighty-five deaths, or .57 per cent. of mortality against one hundred deaths, or .65 per cent. in 1881 and 1882.

CEREBRO-SPINAL FEVER.

This was fatal in two hundred and eighteen cases, causing 1.47 per cent. of the total mortality. Last year the mortality was three hundred and seventeen, or 2.08 per cent. of the total deaths. This disease is one of importance from its fatality and sequela, the patient either dying outright, or is left with permanent lesions which belong to no other malady. The pathology and etiology of this disease have been controverted points. *This* much, however, is pretty generally received, viz.: That it is a specific, zymotic disease, worse during severe cold weather, consequently the name "*Cerebro-Spinal Meningitis*" has been dropped and that of "*Cerebro-Spinal Fever*" adopted, and the disease has been classed as a zymotic one. Health officers will please use this term. It is earnestly desired that physicians study closely all the manifestations of this disease, and if possible arrive at some satisfactory conclusion in regard to its cause and prevention. An unusual number of cases has occurred in the southern tier of counties. Dr. S. H. Pearse, Secretary of the Posey County Board of Health, and whose experience with the disease is large, furnishes us a paper upon the malady. (See page 103.).

MALARIAL FEVER.

The various forms of *Malarial Fevers*, viz.: *Catarrhal*, *Continued*, *Conjunctive*, *Intermittent*, *Malarial*, *Pernicious*, *Remittent* and *Relapsing*, were the cause of three hundred and fifty-three deaths, or 2.36 per cent. of the total mortality. Contrasted with that of last year, viz.: five hundred and twenty-one deaths, or 3.42 per cent. of total mortality, this statement conclusively proves that the preceding year was the most unhealthy. It is this class of diseases which has so long contributed to the belief in the unhealthfulness of Indiana. This reputation is unjustly attached to our State. The per cent. of mortality from these diseases is fully as low as that in many of the States whose reputation for immunity from malaria has allowed them to reflect upon the prevalence of diseases in Indiana.

There is no question but that this class of diseases is rapidly diminishing. Various theories are advanced to explain the "change in type" of diseases, but the reasons adduced in the admirable paper of Dr. Latta, on page 50 to 53 of this report, and that of Dr. Geo. W. Sloan on page 85 to 87, are ample explanations of the cause of the decrease of these diseases. It is certainly true that the removal of the dense forests and growth of underbrush and vegetation, which formerly covered such a large area of our State, and the drainage of the ponds, swamps and marshes, have relieved our people of very much suffering from *Remittent* and *Intermittent Fevers*, and in many parts of our State where those diseases were epidemic twenty-five to forty years ago, they have almost entirely disappeared. With the drainage of the Kankakee and other marshes, and the general drainage of low lands, we confidently expect a gradual and continuous reduction in malarial diseases.

In this connection, permit me to say that the amount of capital and labor employed in the manufacture of drainage tile in Indiana in the year 1882 was: Factories, 661; capital invested, \$1,731,159; number of men employed, 3,340; number of tile manufactured, 70,620,000; number of miles of drain laid, 13,790; estimated value of product, \$1,426,000.

The reports to the Indiana Bureau of Statistics show that during the year ending September 30, 1883, there were not less than thirty-five thousand eight hundred and ninety-nine miles of tile ditch laid in Indiana, and during the preceding year thirty thousand seven hundred and one miles were put in.

The editor of the *Drainage and Farm Journal* informs me that his estimate of the drains constructed in the State during the year 1883, was of open drains, one thousand miles.

However, with the increased immunity from malaria, resulting from the drainage of the soil, the exposure of the earth to the rays of the sun, especially that portion which has been disturbed by the plow or spade, forms of disease have been engendered other than the old fashioned "chills and fever." Intestinal disturbances and other irritations have become engrafted upon malarial and other forms of disease, and we have a "typho-malarial" form of fever, and "typhoid" condition which were formerly unknown. True, the term "typho-malarial fever" is considered a misnomer by some authorities; but a personal experience of ten years practice in a malarial

region, induces me to believe that the term "*typho-malarial fever*" is so expressive of the pathological lesions, and indications of a number of cases met with, that it should find a permanent place in our nosology. We have reports of one hundred and eleven deaths from that cause, equal to .74 per cent. of the total mortality. We incline to the opinion, that for the next few years an increase in this malady will take place, in consequence of the drainage and placing under cultivation such large areas of the north part of our State, as is now being done. At the recent meeting of the American Public Health Association, held in Detroit, the subject of "malaria" was presented in several very elaborate papers, and elicited a general discussion. The drift of opinion was in the direction of a theory holding the ground water, or the first water beneath the surface responsible for the disease. In many cases emanations from decaying animal and vegetable matter were supposed to pass up from a depth of two or three feet. These were considered amply sufficient to produce the disease. In other cases, this first stream of water contaminated the drinking water, and the poison was thus introduced. The entire subject, however, is yet unsettled, and an interesting problem.

TYPHOID FEVER.

This cause of death is responsible for a loss of six hundred and fourteen lives, or 4.11 per cent. of the total mortality in the State. Last year the loss of life from it was six hundred and forty-two, or 4.22 per cent. of the total mortality.

This disease is one belonging to civilization and depends upon a poison engendered in connection with human association. That it is a specific zymotic one is now universally admitted. That it is almost always associated with pollution of food or water are admitted facts. Numerous instances of such pollution producing the disease, and its having been traced to the original cause, are upon record.

Perhaps the most striking of recent occurrences of the kind is the one here given: "In St. Pancras during the past few

months this horrible malady has been raging. Four hundred and thirty people have been attacked, according to Mr. Shirley Murphy's report. There have been sixty-two immediate deaths; how much life-long injury we shall never know. This is but part of the unpleasant story. Mr. Murphy has been at the pains of tracing, step by step, the whole course of the outbreak. He found, to begin with, that two hundred and twenty persons among those attacked were in the habit of obtaining their milk from a certain shop; and that the remainder either had their milk from a customer of the same vender, or, where it could not be accurately traced, as in sixty-three cases, might possibly have dealt, at least occasionally, with the same tradesman. Mr. Murphy followed this clue to a farm at St. Albans. He had satisfied himself that the milk venders did not suffer from the fever, until after some of their clients were attacked, so that the poison did not originate in the shop. At the farm, however, he discovered a state of things very similar to that discovered by Mr. Hogg, and we are brought again face to face with the question of water for cattle as well as ourselves. At the farm a cess-pool was in communication, so to speak, with a well, the medium being a sycamore tree whose roots 'grasped' both. Such is the latest result of sanitary science."

EPIDEMIC OF TYPHOID FEVER TRACED TO BAD WATER.

A very singular outbreak of enteric fever at Eversham, and its neighborhood, has been the subject of exhaustive investigation, with the following result: Sixty-nine persons were attacked, six of the cases proving fatal. The disease was distributed through eleven villages, included within a circle having Eversham for its center and having a radius of five miles. The cause was traced to a low-lying meadow—abutting on the town, and crowded on a particular occasion with people witnessing the local regatta. All persons first attacked had been present there, and at this meadow, no case of fever occurring among those people thronging any other locality. Of forty-six persons attacked, thirty-two certainly, and eleven probably, drank while in this meadow water in the form of lemonade, or mixed with spirit, the water being obtained from a well in the immediate neighborhood. Analysis showed this water seriously contaminated with animal organic matter, and the

well has been closed by order of the magistrate.—*British Medical Journal*.

The water supply of suburbs, country towns and seaside resorts, obtained from superficial wells, would seem to be, in many instances, most dangerous. Drainage from the soil and from adjacent vaults and cess-pools percolate into these and poison the water, as in the recent fatal outbreak of disease at Rye Beach, N. H. The well which supplied the cottage wherein half a dozen persons were prostrated with typhoid is thirty feet deep. It was only recently dug, as the cottage was built only last spring. Twenty feet away is the vault into which the refuse from the house was discharged. When the water was found to have a whitish color and a foul smell and cases of fever occurred, this vault was suspected as the source of contamination; but after it was cleared out and disused the water remained vile as ever. It now appears that the drainage of a neighboring cottage was for many years led to a manure heap and permitted to slowly soak down into the soil, and that the bottom of the new well must have touched a hollow space, in which this disgusting liquid has been accumulating.—*Sanitary Engineer*.

On page 157 of this report we give instances of its outbreak, being due to polluted wells. But why add to the already overwhelming list of instances of typhoid fever arising from a polluted water supply or deficient sewerage. Medical literature is full of them, and the unhappy experiences of the cities of Pittsburg, New York, Baltimore, Philadelphia, St. Louis, Indianapolis, and others, attest the truth of the proposition. We present reports from counties in Indiana where typhoid fever has prevailed during the year. The following blank elicited the replies given:

INDIANA STATE BOARD OF HEALTH.

Secretary's Office, 20 and 21 Masonic Temple, Indianapolis.

REPORT ON TYPHOID FEVER.

DEAR DOCTOR:

The County Board of Health reports deaths from Typhoid Fever in your county since September 30th, 1882.

Recognizing as we all do, that Typhoid Fever belongs to the zymotic or preventable class of diseases, I am anxious to secure as much information regarding the cases reported as possible, in order to be prepared to protect the citizens of the State against the malady hereafter; to that end I hope that you will be kind enough to fill up the inclosed blank and send me between now and November 1st, 1883. I send addressed envelope.

E. S. ELDER, M. D.,

Secretary and Executive Officer.

1. How many cases of Typhoid Fever have occurred in your county since September 30, 1882?.....

2. How many deaths from it?.....

3. Were there any families in which several cases occurred?.....

4. Were there any families in which more than one death occurred?.....

5. If so, how did the outbreak of the disease occur?.....

6. Can you assign any cause for its presence?.....

7. Was the condition of the premises good?.....

8. Was the water supply pure, and safe from pollution?.....

9. Were there any evidences of the contagiousness or infectiousness of the disease?.....

10. Were precautions used in disinfecting and destroying the discharges from the patients?.....

11. Any additional information or observations please insert here.....

REPORT ON TYPHOID FEVER.

BY C. E. WALKER, M. D., DELPHI, IND.

1. Twenty-three.
2. Eleven.
3. Yes; one family of eight. All had it.
4. No.
6. A well of water in a family where eight persons had the disease was found with dead rats in it and probably received the contaminating water from a hog wallow near by.
7. No; not in the instance above given. All the others reported "unknown." The new blanks have no "Result" printed in them.
8. Answered above.
9. In one instance where a death occurred and others were affected, the stools, etc., had not been buried.
10. After one death had occurred and others been attacked.
11. Can not get over the conviction that many cases are reported as "typhoid" where there was no evidence of the peculiar characteristics of the disease.

REPORT ON TYPHOID FEVER.

BY JAS. F. HIBBERD, M. D., RICHMOND, IND.

1. Thirty-nine.
2. Twelve.
3. Yes; one had four, four had three, four had two cases each, all other families had one case each.
4. No.
5. Unknown.
6. No.
7. Unknown.
8. Unknown.
9. Nothing special.
10. Yes; so far as known.
11. See letter of even date.

Every case of typhoid fever is a problem worthy of investigation, and should be solved by the health officer, and the cause of its presence determined.

In a few words, let us say that *typhoid fever* is the result of *specific* poison. That poison is usually connected with the *water* supply or *bad sewerage*. *Every* case of this fever is a focus of *infection*, and the *discharge* of the *bowels* the *medium* of conveyance; therefore, *disinfect* and *destroy* all *discharges* from the *bowels*, examine critically the water supply and sewerage. Circulars of suggestions and instructions will be sent to any one desiring them.

PERTUSSIS.

This disease caused the death of 183 persons, or a mortality of 1.22 per cent. of the total. Last year 149 died from it, a mortality of .98 per cent. of the total. The disease is now subsiding, having paid one of its periodical visits.

SCARLATINA.

This disease prevailed in fifty-six counties. Eight hundred and seventeen cases were reported. One hundred and fourteen persons died from it, a mortality of .76 per cent. of the total against .61 per cent. of the total mortality of last year. It is gratifying to know that health and school officials, physician and parents are awake to the importance of *prevention* of this disease.

The following blanks were sent to health officers and elicited the replies given:

INDIANA STATE BOARD OF HEALTH.

Secretary's Office 20 and 21 Masonic Temple.

REPORT ON SCARLATINA.

DEAR DOCTOR:

The County Board of Health reports deaths from scarlatina in your county from October 1, 1882, to June 30, 1883. Recognizing as we all do, that this disease belongs to the zymotic or preventable class, in order to protect the citizens of the State against its ravages in the future as fully as possible, I desire to secure as full a history as practicable of every case that has occurred in the State since September 30, 1882. For that purpose I send you this blank, with return envelope. Will you will please fill it as completely as you can, and return it to me between now and November 1, 1883.

E. S. ELDER, M. D.,
Secretary and Executive Officer.

Question 1. How many cases of scarlatina have occurred in your county since September, 1882?.....

Question 2. How many deaths from scarlatina have occurred in your county since September, 1882?.....

Question 3. How did the attacks originate?.....

Question 4. How was the disease spread?.....

Question 5. How many cases occurred in each family?.....

Question 6. Were there any evidences of its infectious nature? (by being carried by persons or things from a case to unaffected parties?).....

Question 7. Was isolation and disinfection resorted to?.....

Question 8. Were the members of infected families prevented from associating with the public, attending school, church, etc.?.....

Question 9. Any other observations interesting, please add.....

REPORT ON SCARLATINA.

BY J. S. ARWINE, M. D., COLUMBUS, IND.

1. Three. Dr. Newton reported two; Dr. Stapp one.
2. But one, so far as I am able to learn; reported by Dr. Stapp.
3. The attending physicians claim they do not know.
4. It was not spread; all the cases occurred about the same time, with no way of communication.
5. Two in one, and one in the other family.
6. None whatever.
7. It was by the attending physicians.
8. They were.
9. Know of nothing worthy of note; as there was no spread, it must have been mild sporadic cases.

REPORT ON SCARLATINA.

BY JAMES S. MAVITY, M. D., FOWLER, IND.

1. Twenty-one.
2. Three.
3. In most of the cases the cause was traceable directly to infection—direct exposure to the disease by members of the same family.
4. Have been unable to trace the spread of the disease only in family, as the different families were isolated.
5. Three in three, two in four, one in eight families.
6. None that can be said positively, but some cases of diphtheria followed exposure.
7. Yes.
8. They were, as far as I can learn.
9. The cases occurred in different parts of the county; could not get full history of all cases.

REPORT ON SCARLATINA.

BY D. J. SCHWARTS, M. D., AUBURN, IND.

1. Not known. There were a few unreported cases.
2. Two reported.
3. The origin of infection was not known in first cases, so far as I can learn.
4. Usually by contagion.
5. More than one, where there were several children.
6. Not so far as I know during the time above asked for. The year before, one physician probably carried the germs of the disease a distance of four miles.
7. Yes.
8. Yes.
9. In case above, question six, the physician had seen, in consultation, a case of malignant scarlet fever in last stage, the child dying about the time he left the house; says very thorough disinfection was resorted to during his stay and upon his leaving. He walked home, four miles, about midnight, and did not see his little grand-daughter until morning. In about eighteen days a well-developed case of scarlatina appeared in the little girl, which did not prove fatal, although several other cases appeared within a few weeks after in the same neighborhood, with two deaths. There was no knowledge of *direct* contagion in the last cases, and the houses were placarded and disinfection used, and I am told in a thorough manner.

REPORT ON SCARLATINA.

BY J. M. GRAY, M. D., NOBLESVILLE, IND.

1. Eighty-eight.
3. From water supply.
4. Only by the same cause; impure water.
5. Usually all the children were attacked.
6. No.
7. Yes.
8. Yes.
9. In families where the children suffered with scarlet fever the adults usually were victims of typhoid fever, and in some cases, after the child recovered from scarlet fever, a typhoid fever would ensue.

REPORT ON SCARLATINA.

BY M. G. BLISS, M. D., CROWN POINT, IND.

1. Thirty-four as reported.
2. Six, as per record of cases reported at this office. Three of these deaths occurred in one family in Ross township.
3. How the disease originated, can not say, unless from dampness and poor ventilation, and so of other cases.
4. It is impossible to say. Cases occurred without any known exposure with those that were known to be infected.
5. 2, 2, 6, 4, 6, 2, 3, 2, 3, 2, 2.

6. No positive evidence. Mr. Wheden's child contracted the disease, and was supposed to have been infected from her father, who visited a family infected. Dr. Pettibone attended this child and he supposes he infected his two children.

7. It was in all cases, so far as I can learn, and to my own knowledge in some families.

8. They were, so far as I can ascertain.

9. We labor under very many disadvantages in collecting facts, on account of the extended and sparsely settled territory. Most of these cases have occurred in the northern part of the county, where the water lies very near the surface nearly the year round.

REPORT ON SCARLATINA.

BY HORACE E. JONES, M. D., ANDERSON, IND.

1. By the record there has been but one case.
2. One.
3. Probably originated from contagion while at a basket picnic.
4. The disease in this case was not spread.
6. No.
7. Yes.
8. Yes.

REPORT ON SCARLATINA.

BY JOHN E. MARKLE, M. D., WINCHESTER, IND.

1. Thirty-nine.
2. Six.
3. Some were sporadic and others were from contact.
4. Was not spread.
5. Two was the most.
6. Only in the family where it made its appearance.
7. It was; flags were placed at every house.
8. They were, and the greatest care taken to prevent its spread.
9. From what I can learn, the cases that made their appearance, without contact, were infected from privies that had went for years without disinfecting them.

Especial attention is called to the instructions on pages 127 to 136, a copy of which circular will be furnished all applicants.

During the last year considerable interest has been taken in the inoculation of animals with mucus from horses supposed to be suffering from scarlatina. At first dogs and rabbits were the subjects. The result was so favorable that M. Stickle, of Paris, inoculated with the same material twelve children who had never had scarlatina. The usual symptoms of scarlatina supervened and ran the ordinary course of that malady. Subsequent inoculation of these very children with blood from the veins of scarlatina patients produced no evidence of the disease

whatever. A new field is thus opened, and it promises to be well worthy further cultivation.

Pasteur has demonstrated the value of this method in modifying the effects of swine and chicken cholera. If scarlatina and other infectious diseases can thus be modified or prevented, as in small-pox, a great blessing will be conferred by the discovery.

SMALL-POX.

It is with great regret that we announce the presence of this disease in thirty-one counties with 644 cases, of which 213 died. This loathsome, deadly disease, the prevention of which is so easy and reliable and within the reach of all—this loss of life equal to 1.42 per cent. of the total mortality throughout the State, which last year was .76 per cent.—is an opprobrium upon the intelligence and industry of this *age of civilization*. That a loss of 213 lives, equal in value to the State to that many thousand dollars, beside the loss and suffering by the 431 other cases reported—that this should occur in Indiana I am heartily ashamed of. Not that I blame the *health officers*, for I know that they manfully labored to do their duty. But the inexcusable ignorance and obstinacy of many people, aided by the silly prejudice inherited from ignorant ancestors, together with the pernicious teachings of so-called *doctors*, who are the shame of the “profession”—all these conspired to render the work of the health officer difficult, embarrassing and imperfect.

The following is the form of blank for reports sent to health officers throughout the State, and the replies elicited:

INDIANA STATE BOARD OF HEALTH.

Secretary's Office 20 and 21 Masonic Temple, Indianapolis.

REPORT ON SMALL-POX.

DEAR DOCTOR:

The County Board of Health reports deaths from small-pox in your county since September 30, 1882. Recognizing this disease as a zymotic one, belonging to the preventable class, in order to protect the citizens of the State against

future outbreaks of the malady, I am anxious to secure a history of all the cases occurring in Indiana for the past year. To that end, will you kindly furnish me with the answers to the following questions upon this sheet, and return the same to me between now and November 1, 1883.

E. S. ELDER, M. D.,

Secretary and Executive Officer.

Question 1. How many cases have occurred in your county since September 30, 1882?.....

Question 2. How many deaths have occurred in your county since September 30, 1882?.....

Question 3. How was the disease introduced?.....

Question 4. How was it spread?.....

Question 5. Was vaccination and re-vaccination promptly resorted to?.....

Question 6. Was complete isolation and quarantine practiced?.....

Question 7. Were the funerals strictly private?..... Were they within twelve hours of death?.....

Question 8. Were there any deaths of persons who had been successfully vaccinated?..... If so, how soon after vaccination?.....

Question 9. Did you observe any difference in the protective value of bovine and human virus? If so, in favor of which?.....

Question 10. What unpleasant effects of vaccination did you observe, if any?.....

Question 11. Did those unpleasant effects follow the use of bovine or human virus?.....

Question 12. Did any school children die with the disease?
.....

Question 13. Any other observations please give here.....

REPORT ON SMALL-POX.

BY T. A. GRAHAM, M. D., JEFFERSONVILLE, IND.

1. Eighty. (Approximated.)
2. Twenty-nine.
3. From Louisville, Kentucky. The first case that occurred, in November, 1882, could be traced directly to Louisville. This case was isolated; no one contracted the disease from him. The second and third cases, in December, were both taken in Louisville. After that time we could not trace the disease to any special case.
4. Generally by unvaccinated persons visiting infected localities. The disease was conveyed to one family in the county (five miles from Jeffersonville) by clothing from the Louisville Pest House, after having been washed, disinfected, etc.
5. Yes. We have a large population of negroes that are constantly coming and going, and who don't know the value of vaccination.
6. Yes. As stated in answer to five, the negro population did not understand the value of vaccination or isolation; as a result, nearly all who had the disease were negroes.
7. Yes.—Yes, within twelve to eighteen hours.
8. No.
9. No. Bovine virus was used almost exclusively.
10. None. There were some sore arms, but no more than would have resulted from any other abrasion of the true skin.
12. No.
13. My experience during this epidemic confirms my belief in the value of vaccination. In no case where vaccination had been successfully performed did the disease require but little treatment, and the time of detention in hospital exceed eight or ten days. In regard to the value of vaccination, I fully indorse the teaching of *Flint* and *Ziensen*.

REPORT ON SMALL-POX.

BY J. C. FRENCH, M. D., GREENSBURG, IND.

1. Ten.
2. Four.
3. Contracted by passing a house in North Vernon which contained a case of small-pox.
4. By neighbors visiting the first case, which was mistaken for another disease.
5. Yes.
6. Yes, it was, to the complete satisfaction of every citizen in the county, the Indianapolis correspondent to the Cincinnati Commercial Gazette to the contrary notwithstanding.
7. Yes.—Yes.
8. Yes.—Many years.
9. Bovine best.
10. Very sore arms.
11. Human virus.
12. No.

REPORT ON SMALL-POX.

BY A. B. BRADBURY, M. D., MUNCIE, IND.

1. Sixteen.
2. Ten.
3. In one instance it was contracted at Connersville, Ind., and in another at Leadville, Col. In neither instance was it known that the person had been exposed until the disease developed.
4. In one case the disease was not diagnosed until death of the patient, and other members of the family fell sick. In this instance the funeral was public, but no one contracted the disease at the funeral.
5. Yes.
6. Yes; after diagnosis of small-pox was made. In the first case diagnosis was not made and ten cases resulted.
7. Yes, after the first. —Yes.
8. No.
9. All those vaccinated were with bovine virus.
10. None. I feel confident that it modified the attack of one case, in which it was practiced after exposure occurred.
12. No.
13. A full report of these cases was sent to the State Secretary soon after they occurred, and will be found there.

REPORT ON SMALL-POX.

BY HENRY GERS, M. D., WASHINGTON, IND.

1. Four.
2. Three.
3. In one instance a party contracted varioloid while visiting outside of this State, and another by handling old bed ticks supposed to have been infected.
4. By contact in family.
5. Yes.
6. Yes; both cases—in country and in city.
7. Yes.—Yes.
8. Yes.—Eight days. With variola.
9. Used only bovine virus.
10. None during this epidemic.
11. Three years ago; unpleasant effects from supposed bovine virus.
12. No.
13. We are still having an occasional case of variola, and have more deaths to report in next quarterly report.

REPORT ON SMALL-POX.

BY D. W. BUTLER, M. D., CONNERSVILLE, IND.

1. Five.
2. Two.
3. By a member of the family coming home after working in the small-pox hospital at Cincinnati. The authorities did not know these facts until the family was infected.

4. Did not spread beyond one family.
5. They were.
6. It was.
7. Yes.—In a very few hours.
8. No.
9. We used altogether bovine virus.
10. Some cases were unusually sick, with an eruption over the entire body.
11. Bovine virus.
12. No.
13. There seemed to be an unusual number that had a complete and aggravated eruption produced by the use of the virus, but none fatal—perhaps about one in forty or fifty that were vaccinated—all in small children.

REPORT ON SMALL-POX.

BY A. M. SHIELDS, M. D., ROCHESTER, IND.

1. Seven.
2. Four.
3. By parties coming from the West when the disease was in the *desquamative* stage.
4. By infection.
5. Probably not perfectly, but to a very good degree.
6. As well as could be under circumstances.
7. I think they were.—Yes sir.
8. No, sir.
9. No, sir.
10. None.
12. No, sir.
13. This County Board of Commissioners did not act upon the requirements of the State Board, and what vaccination took place was *voluntarily* on the part of the people.

REPORT ON SMALL-POX.

BY J. M. GRAY, M. D., NOBLESVILLE, IND.

1. Three.
2. One.
3. From infection at Indianapolis.
4. No spreading.
5. Yes, after it was too late.
6. Yes.
7. Yes.—Yes.
8. No.
9. Bovine virus in 1872 proved very ineffective; in 1883 it was much better.
10. None in 1873, but in 1872 erythema was quite common.
11. More frequently bad results from bovine virus.
12. No.
13. In 1872 we used 450 or 500 points furnished by Lonard, of Detroit, Mich.; four out of five failed; in 1882 from the Chicago stables (George Dickson's); in 1883 we had only one failure in six.

REPORT ON SMALL-POX.

BY LEROY H. KENNEDY, M. D., DANVILLE, IND.

1. Eighteen.
2. One.
3. By persons getting it at Indianapolis, bringing it into the county, and exposing their families before it was known they had it.
4. As stated above; did not spread from the family in which it was introduced.
5. Yes.
6. Yes, as soon as discovered.
7. Yes.—Not reported.
8. No.
9. All those formerly vaccinated with human virus were revaccinated with bovine virus.
10. None whatever.
12. No.
13. The blank reports should particularly contain all these questions.

REPORT ON SMALL-POX.

BY N. S. SHIPMAN, M. D., SEYMOUR, IND.

1. Eight.
2. Five.
3. The disease was introduced into this city by a young man by the name of Reynolds, who had been to see his mother, then lying sick of the disease, at Mitchell, Indiana. He was with her until she died and was buried, (and I understand that they had a public funeral, not knowing that she died of small-pox.) The young man then came to this city, and in due process of time was taken down with the disease and died.
4. This young man was taken charge of by the board of health as soon as the case was reported, and when he died he was placed in an air-tight coffin, and the bedding and clothes were all placed in a box, and at midnight were taken to the graveyard and buried. The next case that broke out in our city was a young man by the name of Carter, whose father had assisted in burying young Reynolds. It was thought that he disinterred the box containing the clothing and took the clothing home for his own use, as some of the articles were found in his house afterwards. Before the disease could be controlled three other families were inoculated, in which four persons were affected with the disease, all of which died, and were placed in air-tight coffins and buried; the bedding and clothing being first saturated with coal oil and sprinkled over with ground roll sulphur, and burned in the grave when about half filled, and the filling completed after the stuff had all been destroyed.
5. Yes.
6. Yes, in every instance.
7. Yes.—Yes.
8. No.
9. We used nothing but bovine virus.
10. In a few instances we had ulcerous looking sores, lasting sometimes for six months.
11. Bovine.
12. One—(belonging to the Catholic school).

REPORT ON SMALL-POX.

BY J. T. JONES, M. D., FRANKLIN, IND.

1. Seven.
2. Two.
3. The first case, in December last, was contracted in Tennessee, by Wm. Essex, not vaccinated, and died; communicated varioloid to his nurse and one visitor. The nurse had varioloid on a previous occasion. The second that died was contracted at Indianapolis in April last; was not vaccinated. Two other children in the same family (not vaccinated until after they were exposed) contracted the disease; both recovered. The last case can not certainly be traced to the origin.
4. It was not allowed to spread, from the fact that strict isolation and quarantine was *enforced*.
5. Yes, with every one that were in the least exposed.
6. Very rigidly at their homes. We have no pest house.
7. Strictly, and at night.
8. None.
9. None.—The cases of varioloid were persons who had been vaccinated a number of years with human virus, but were mild.
10. In the winter and spring a great number of bad arms were the result.
11. In every case with bovine virus.
12. No.
13. From the unpleasant effects following the use of bovine virus in this county I am of the opinion that an order to use it now could not be enforced.

REPORT ON SMALL-POX.

BY F. M. HARRIS, M. D., VINCENNES, IND.

1. Two.
2. One.
3. A young man in the express office at North Vernon, Ind., contracted the disease and was brought to this city, where he died; his mother, who waited upon him, took varioloid in a very mild form and recovered.
4. Was not allowed to spread, as the strictest precautions were taken to prevent it.
5. No, not in the young man at all, and only after six days was the mother revaccinated, by a Homeopath.
6. Yes.
7. Yes, and in the middle of the night.—Yes; about twelve hours after death.
8. No.
9. I learn from the physician who treated the cases that he used bovine virus in the family with good results.
10. Says there were no unpleasant effects whatever.
12. No.
13. In the case of the mother the vaccination took before the symptoms of varioloid showed up, and both seemed to be present at the same time. The young man said he had been vaccinated when a child, but the scar was not characteristic.

REPORT ON SMALL-POX.

BY G. W. BURTON, M. D., MITCHELL, IND.

1. Twenty.

2. Five.

3 and 4. W. Reynolds, Sr., who had been living for several years at Vincennes, after a trip to Chattanooga, Tenn., returned to Mitchell with his mother, wife, daughter and grand-daughter about the 1st of February, 1883. He was not well for some time, but did not take his bed or consult a physician. February 16 his little grand-daughter was taken sick, and February 20 his wife. Dr. A. J. McDonald, a young physician, was called to see Mrs. Reynolds February 25, and attended her to date of death, February 28. A public funeral was given Mrs. Reynolds on March 1. Thirty-one persons present, including a son and married daughter, from Vincennes, and a son from Seymour. March 2, after hearing history of the cases, Dr. J. L. W. Yost diagnosed small-pox, and caused "red flag" to be placed on the premises. March 5, I was requested by the local Board of Health to go with Dr. A. J. McDonald and examine the little grand-daughter of Reynolds; diagnosed "varioid." The mother of Mr. Reynolds was quite ill, but no eruption appeared until March 7; died on March 11. The young man (Wm. Reynolds, Jr.) and his sister were sent from Vincennes, Friday, March 16; eruption came out on the young man the same night, and the sister the following night, the former dying March 22 and the latter March 23. I was informed that both were taken sick either on Thursday evening or Friday morning. Mrs. Sarah Enochs, exposed at the funeral of Mrs. Reynolds, was taken sick on March 12; eruption appeared on the evening of March 17, and she died on the morning of March 24. The daughter of Mr. Reynolds and Mrs. Enochs had hemorrhage from the nose, mouth and uterus; the young man from the nose, mouth, ears and bladder. Of the thirty-one persons exposed, five who had not been vaccinated contracted the disease and died, four others contracted varioid; vaccination entirely protected the remaining twenty-two. Three others were probably exposed while obtaining water from the Reynolds' premises; two from a prostitute; one from a barber's razor and brush (while shaving Wm. Reynolds a dried pustule was cut, and the same razor and brush was used on another customer in a few minutes and he contracted the disease in eleven days, and a room mate from him); one from nursing Mrs. Enochs, and one not known. The five unvaccinated cases that died I pronounce malignant small-pox. The cases of varioid were unusually mild. I am of the opinion that undue exposure in bad weather was at least a partial cause of an unusual sore in the three cases named. Do not know of but very few vaccinations with humanized virus in the last year. In one of those so vaccinated well marked constitutional syphilis is the result. If a correct diagnosis had been made prior to the funeral of Mrs. Reynolds, of course, the spread of the contagion would have been prevented, but the local authorities knew nothing of it, nor was it reported to this office until March 3, after necessary quarantine and isolation was resorted to.

5. Yes.

6. Yes, after it was known.

7. Except the first, yes.—From twelve to twenty; always at midnight.

8. No.

9. In 2,300 vaccinations with bovine virus, bad results in three cases only; all, however, in a short time made good recovery.

10 and 11. Answer in 3 and 4.

12. No.

REPORT ON SMALL-POX.

BY HORACE E. JONES, M. D., ANDERSON, IND.

1. Eight.
2. Four.
3. By contagion. One was a nurse in a case of small-pox. In one the contagion was not very clear, but supposed to have been contracted on the cars. In one there was no report made to this office. The rest took the disease by living in the same house.
4. It was, in some cases, spread by contagion, one member of a family giving it to another. In other cases the spread was unaccounted for.
5. Yes, in all cases reported.
6. Yes, after the disease was made out to be small-pox.
7. Yes.—Yes.
8. No.
9. No difference observed.
10. Phlegmonous abscesses and sloughing ulcers frequently occurred.
11. The bovine, as it was almost exclusively used according to law.
12. No.
13. The report of five deaths from this county is probably a mistake. There were but three deaths known to this office by report; the fourth case occurred above Pendleton, this county, but was never reported.

REPORT ON SMALL-POX.

BY S. H. PEARSE, M. D., MT. VERNON, IND.

1. Twenty.
2. Four.
3. By a negro who had had the small-pox in Evansville, last February. After his recovery there he brought some blankets and left them in the house of a colored man here, and the first that was known of it the wife was breaking out.
4. Not knowing they were exposed, the woman being *eniente* near full time, she gave birth to a child, and her neighbor women were then exposed.
5. It was after the second exposure.
6. They were as soon as the circumstances would permit.
7. They were.—Yes.
8. No.
9. We used none but bovine. But those that had been vaccinated previously I presume human had been used. I saw no difference.
10. None at all the last season. One year ago extensive inflammation followed bovine in two cases.
11. In one house of colored containing fifteen, a case occurred and was promptly removed and all vaccinated that day, and not a case had varioloid; all had sore arms, though.
12. They did not.
13. I saw the second case and diagnosed small-pox, and after that there were no cases excepting those already exposed at Mt. Vernon. The Township Trustee had sent to the poor asylum a colored woman, and she had been exposed, and communicated it to several at that institution, but they are all included in the number here given.

REPORT ON SMALL-POX.

BY W. A. PUGH, M. D., RUSHVILLE, IND.

1. Two.
2. One.
3. By a young lady who returned from a visit at Wabash, Ind., and brought it with her.
4. It was not spread out of the family in which she was when taken sick.
5. The woman who died had not been vaccinated. The disease was not recognized until the eruptions came out, too late to vaccinate.
6. Yes; except Mrs. Dunn and her husband. He has had the small-pox and Mrs. Dunn contracted varioloid.
7. Yes.—Yes.
8. No.
9. None but bovine virus was used.
10. In the case connected with this woman, none.
12. No.
13. The case was recognized early and she was perfectly isolated, consequently there was no spread of the disease.

REPORT ON SMALL-POX.

BY GEORGE B. WALKER, M. D., EVANSVILLE, IND.

1. Two hundred and forty.
2. Thirty-three.
3. River 12 cases; at home 70 cases; not reported 158 cases.
4. By contagion from person to person, or from house to person.
5. Yes, as far as practicable.
6. Careful isolation; no quarantine.
7. Yes.—Generally so.
9. The bovine more violent and causing troublesome ulceration, and sometimes eruption over the body; the protective qualities equal.
10. Nothing more than troublesome ulceration and eruptive fever.
11. Bovine.
12. With small-pox, yes.
13. The small-pox appeared to be introduced here from other places by the river.

REPORT ON SMALL-POX.

BY C. E. LINING, M. D., EVANSVILLE, IND.

1. Two hundred and seventy-one.
2. Ninety-three.
3. Small-pox was introduced into the city by the steamboats from Cincinnati, St. Louis and the Tennessee river. Nearly all the first seventy cases can be traced directly to the steamboats, the freight handled on these boats, or the persons working on the levee.
4. By working on the steamboats, barges, etc., handling freight taken from those boats; by personal contact, in one instance, at least, by a dog, and possibly in

other cases. In such a large number of cases it is impossible to enumerate those known or find out all. Emanation from the infected person to the street was the undoubted cause of several.

5. In the immediate neighborhood, in certain localities, a house-to-house vaccination.

6. As complete as it was possible to make it, when dealing with the class in which it first showed itself—the colored race.

7. Strictly.—In all except two instances, which were for good cause.

8. Not directly from small-pox, but from some complication.—Many years.

9. Not in the protective value; but the humanized was far more reliable in producing successful vaccination, if the fresh lymph was used.

10. Some very bad arms.

11. More followed the use of the bovine virus.

12. Yes; because they were not successfully vaccinated.

13. There were undoubtedly cases treated at home and never reported, and several were found walking about the streets with the variola broken out on them, and several also with varioloid.

REPORT ON SMALL-POX.

BY J. R. CRAPO, M. D., TERRE HAUTE, IND.

1. Four.
2. Two.
3. By tramps from St. Louis.
4. By direct exposure. A nurse at the pest-house was one of the victims.
5. Yes, in the nurse that recovered.
6. Yes.
7. Yes.—Yes.
8. No.
9. No.
10. Severe dermatitis, and an eruption over the whole body resembling lichen or eczema.
11. The use of bovine virus.
12. No.

REPORT ON SMALL-POX.

BY JUSTIN ROSS, M. D., WILLIAMSPORT, IND.

1. Twenty-four.
2. Seven.
3. By a man living in this county, who went on a visit to Winchester, Ind., via Indianapolis, and was exposed to the contagion some place on the road.
4. By the disease being not diagnosed until quite a number of neighbors were exposed.
5. Yes.
6. Yes.
7. Yes.—Yes.
8. No.
9. Bovine.
10. Extremely sore arms in human virus.
11. Human virus.
12. No.

WILLIAMSPORT, Ind., October 21, 1883.

E. S. Elder, M. D.:

DEAR DOCTOR—The origin of the small-pox was as I told you. He had been treated by two or three very reputable physicians, who claimed the case was not small-pox. I was sent for the evening before the man died and pronounced it a case of malignant small-pox, and had him buried as such. Every case that was vaccinated successfully, recovered, and every case that the vaccine failed to take died with confluent small-pox. Respectfully and truly,

JUSTIN ROSS, M. D.

It is useless to dilate upon the efficacy of vaccination as a prophylactic against small-pox. *That* has long been settled in the minds of those persons possessing reasonable intelligence. A very interesting question, however, exists in regard to the comparative protective properties and the reliability and effects of bovine and humanized virus. The bovine, being of comparatively recent introduction, had to gain a standing in Indiana during the last two years. After a pretty general observation of its effects, and an experience of supervising the vaccination of seventy-five thousand people in the city of Indianapolis, and the examination of several thousand emigrants recently vaccinated, my own preference is for the *bovine* virus. In fact, I would *not* use the other unless under an *extreme* necessity. I was called in consultation to see two cases of secondary syphilis in children, which was doubtless introduced by vaccination with humanized virus. Dr. Burton, on page 169, records another. These alone are enough to forever condemn its use. I know that many well-grounded complaints arose in regard to the very sore arms produced by bovine virus. My own personal experience, however, was that *humanized* virus produced the *worst* arms. True, the action of the bovine was generally more severe, yet not so great as to cause alarm. Another just cause of complaint was the unreliability of the bovine virus. This was well-founded, and in order to protect against the imposition of the worthless virus the rule was adopted compelling producers to label their virus. *Scabs, cones or crusts* of either human or bovine virus should *never* be used. They may contain irritating matter, syphilitic, and possibly scrofula poison. With the use of fresh lymph, on clean points or quills, not more than ten days old, I think bovine virus offers advantages that the human does not. The experiences of health officers, large corporations, public institutions, the army and navy, ship sur-

geons, and others whose experience is greatest, are generally in favor of the bovine virus.

The following are the "Rules of this Board" upon the subject of "Small-pox" and vaccination, in addition to those on page 125:

"Each day brings evidence of the increasing danger and virulence of this loathsome disease, small-pox, and also increased evidence of the power of vaccination to save from its ravages all persons who avail themselves of its protective influences. It is the duty of all unvaccinated persons within this State to be vaccinated immediately.

"All persons coming into this State, who are unprotected, are requested to be vaccinated on their arrival. It is desirable that all children born within this State be successfully vaccinated within twelve months after birth.

"All vaccinations must be with reliable non-humanized virus. The only exception to this rule that would be recognized by the State Board would be in the event that small-pox was prevalent in epidemic form, and the Health Officer should certify as to the impossibility of obtaining such virus in sufficient quantities, and also as to the purity of the humanized virus used.

"But no virus shall be bought, sold or used by physicians in vaccinating, except such virus has been taken from the original package of the physicians, as obtained from the producer of said virus; and said original package of one point or more shall be bought and sold in sealed envelopes, having upon such envelope the name of the proprietor of the farm where the virus is produced, and also the date when such virus was taken from the cow."

The only effective method of affording complete immunity from this malady is the exercise of compulsory power by the State and municipal authorities. The history of the disease in European countries proves that this is an effective guarantee. I am free to admit, however, that an order for a universal vaccination of *all* the people of our State regardless of *sex, age* or condition, would meet with serious objections, and is perhaps impracticable and impolitic. But this much *should* be done and insisted upon: *all* children should be required to be properly vaccinated before being admitted to the public schools. In localities where the disease is prevailing, all persons having

been, or liable to be exposed to the disease should be compelled to submit to vaccination. All inmates of public and State institutions, schools, colleges and universities should be compelled to vaccinate.

The Legislature should pass a law requiring all children to be vaccinated within one year after birth. City and town Boards of Health should, by ordinance, provide for carrying out the above suggestions.

In the mean time let health officers and physicians constantly urge the necessity of being protected by, and the value of, vaccination. Impress upon the public the fact that *small-pox* is a loathsome, repulsive, unnecessary disease that owes its existence and prevalence to *filth*, squalor and wretched unhygienic surroundings; that as *they* predominate *small-pox* flourishes.

Let the people feel that we have a *sure, safe* and easy method of protection against it; that the contraction of it is largely a *voluntary matter*, and that it should properly be classed as loathsome and unnecessary as the odious *venereal* maladies, and its presence be as abhorrent and as repulsive as the diseases of that class *properly* are. By these means we can educate the sentiment of the masses up to a point that compulsory vaccination will not only be tolerated, but *demanded*, by the people of our State. Very important questions regarding the power of health officers and municipalities, in regard to isolating small-pox patients and the disinfection and destruction of infected articles, have been continually referred to this office. In order to settle authoritatively the question, the matter was referred to the honorable Attorney General of the State. He examined into the question with great care and patience, and rendered a very exhaustive opinion upon the subject, which is so valuable and important that we include it in our report:

IMPORTANT OPINION

BY THE ATTORNEY GENERAL—THE BOARD OF HEALTH MAY ENACT REASONABLE REGULATIONS TO SUPPRESS NUISANCES—A PATIENT CAN NOT BE REMOVED FROM HIS HOME TO A HOSPITAL WITH SMALL-POX WITHOUT HIS CONSENT, UNLESS ABSOLUTELY NECESSARY TO PROTECT THE PUBLIC HEALTH.

The State Board of Health :

I have received from the Board, and proceed to answer the following inquiries :

1. "Can Local Boards of Health enact regulations on the subject of nuisances, for the preservation of the public health?"

The statute provide that "such Town, City and County Boards shall have authority, and it shall be their duty in the locality concerned, under the direction of the State Board of Health, to promulgate and enforce such regulations for the preservation of public health and the prevention of epidemic and contagious diseases as may be advisable by them. Any person or persons or the officers of any corporation neglecting or refusing after having been notified in writing to comply with the requirements of such regulations shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in any sum not less than \$5 nor more than \$25, and each day said failure or refusal shall continue, shall, after proper notification, constitute a separate offense." R. S. 1881, Sec. 4994.

The power of the several States to pass quarantine and health laws, and to make proper police regulations in reference thereto is undoubted. Cooley Const. Lim., p. 722, 739, 740, 5th ed.; *St. Louis vs. McCoy*, 18 Mo. 238; *St. Louis vs. Boffinger*, 19 Mo. 13; *Metcalf vs. St. Louis*, 11 Mo. 102; *Ault vs. Lexington*, 18 Mo. 401. The preservation of the public health is often made a matter of municipal duty, and it is well that power for the protection of the public against plague and pestilence shall be somewhere lodged.

Many of the powers most generally exercised by municipalities relating to the health of the inhabitants are under the police power of the State, and every citizen holds his property subject to the proper exercise of this power, either by the State Legislature directly, or by public corporations, or agencies to which the Legislature may delegate it; and it is well settled that laws and regulations relating to the public health, though they may to some extent disturb the enjoyment of individual rights, are not unconstitutional, though no provision is made for compensation for such disturbances. These regulations rest upon the maxim: *Salus populi suprema est lex*. 1 Dill. Mun. Corp. secs. 141, 142, 143, 144, 145, 146, 369, 370, 371, 372, 373; Cooley Const. Lim. 722, 739, 740, 5 ed.; *Fertilizing Company vs. Hyde Park*, 98th E. S. R. 659; *Boston Beer Company vs. Massachusetts*, 97 U. S. R. 25; 20 Hun. 137; 23 Amer. R. 203. While a State may enact sanitary laws and for the purpose of self-protection, establish quarantine and reasonable inspection regulations, and prevent persons and animals having contagious or infectious diseases from entering the State, it can not, beyond what is absolutely necessary for self-protection, interfere with transportation into or through its territory. *Railroad Company vs. Hasen*, 95 U. S. R. 465.

The police power is exercised when it is necessary to take, use or destroy the private property of individuals to prevent the spreading of a fire, the ravages of a pestilence, or any other great public calamity. Cooley Const. Lim., p. 722-740; side., p. 584, 5; 593, 4, 5th ed.; *Dillon Mun. Corp.*, secs. 141, 142, 144; *Ferguson vs. Selma*, 43 Ala. 398; *Warner vs. Albany*, 18 Wend, 169; *Miller vs. Hall*, 9 Wend, 315; *Wilkinson vs. Albany*, 8, Fost 9; *Philadelphia vs. Scott*, 81 Pa., St. 80; Sur-

roco vs. Gray, 3 Cal. 69; *Russell vs. Mayor*, 2 Den., 461; *Meeker vs. Van Rensselaer*, 15 Wend, 397; 1 Bish. Crim., L., sec. 490, 7th ed.

The Legislature in the exercise of its constitutional authority may lawfully confer on Boards of Health the power to enact sanitary ordinances, having the force of law within the districts over which their jurisdiction extends. This power has been repeatedly recognized and affirmed. *Palinsky vs. the people*, 73 N. Y. 65; 70, 1; *Metropolitan Board of Health vs. Heister*, 37, N. Y. 661; *Health Department vs. Knoll*, 70 N. Y. 530; *People vs. Justices of Sessions*, 7 Hun. 214; *Coe vs. Schultz*, 47 Barb., 65, 71; *Gregory vs. Mayor of New York*, 40 N. Y. 273; *Hoffman vs. Schultz*, 31 How, Pr. R. 385; *Will vs. Schultz*, 33, How, Pr. 7; *Coe vs. Schultz*, 2, Abe, Pr., N. S. 192; *Warner vs. Mayor of New Albany*, 15 Wend, 262; *Ronu vs. Baker*, 31 Barb., 447; *Gould An.*, N. Y., Dig. of 1881, page 49, secs. 1, 2, 3, 4.

The Board can not make regulations that are unreasonable, arbitrary and oppressive. *Tuegman vs. Chicago*, 78 Ill. 405; 18 Cent. L. Jour. 336; 42 N. Y. 140. It can deal only with public nuisances that are dangerous to the public health. *Lipman vs. South Bend*, 84 Ind. 276; *Goshen vs. Crary*, 58 Ind. 268. The Board was created for "the prevention of epidemic and contagious diseases." It possesses no power of private espionage or unnecessary interference with private rights of person or property.

To secure and promote the public health, safety and convenience the Board is liberally endowed with power to prevent and abate public nuisances. This authority may be constitutionally conferred on the Board, and it is authorized to act against that which comes within the legal idea of a nuisance, but such power conferred in general terms can not be taken to authorize the extra judicial condemnation and destruction of that as a nuisance which in its nature, situation or use is not such. 2 Dillon Mun. Cor., Sec. 374, 3d ed.

What is not a nuisance *per se*, can not be abated by a Board of Health until it is adjudged to be so employed as to be inimical to public health or safety, or until their owners contravene some ordinance prescribing the mode in which they shall be used and thereby make them nuisances. *State vs. Cadwallader*, 36 N. J. L. 283; *Rogers vs. Barker*, 31 Barb., 447. And such matters should be ordinarily left for the action of the court, or municipal intervention. *Rogers vs. Barker*, 31 Barb., 447; 23 Amer. R. 203. It can not absolutely prohibit the carrying on of a lawful business not necessarily a nuisance, but which may be conducted without injury or danger to the public health and without public inconvenience. And there must be notice given in any attempt to affect a party in his rights, and give him an opportunity to be heard. *Weil vs. Record*, 24 N. J. Eq. 169; *Hutton vs. Camden*, 23 Amer. R. 203; 98 Mass. 431; *Underwood vs. Greene*, 42 N. Y. 140; 18 Cent. L. Jour. 456.

The statute does not authorize, and was not intended to authorize the Board of Health to redefine a public nuisance, which clearly is not and can not under any circumstances, be such at common law, and the question whether the thing to be removed or abated as dangerous to life or health is a jurisdictional question, and when the Board undertakes to abate a public nuisance it takes upon itself by its act the risk of being able to show in a proper action by the party whose interests were injuriously affected, that the thing was a public nuisance. *Coe vs. Shultz*, 47 Barb., 64-67; 2 Abb. Pr. R. N. S., 193; 23 Amer. R. 203; 31 Barb., 447; *Underwood vs. Greene*, 42 N. Y. 140, 7 Hun. 175; 46 How. Pr. 24-36.

If acting within its jurisdiction, which is limited and special, and the facts in any given case invoke, or tend to invoke the exercise of discretion by the Board, its action in the premises is in its nature judicial, and for error of judgment it is not liable. *Underwood vs. Green*, 42 N. Y. 140-142; 93 N. Y. 557; 7 Hun. 175.

178; 40 Amer. Dec. 131; 43 Amer. Dec. 724 and note; 49 Amer. Dec. 463; 17 Ohio 402; 35 Amer. Pr. 163; 41 Amer. R. 101-102; 18 Cent. L. Jour. 19; 48 Amer. Dec. 652. But the Board would be liable for a wanton or unnecessary injury. 27 Ind. 394; 42 N. Y. 140. And I might add in this connection, that for illegal acts of the Board, under the statute it has been held that a city is not liable. *Bamber vs. Rochester*, 33 Sup. Ct. R., 26 Hun., 587. The Board has the power to act upon a particular thing dangerous to public health, and cause it to be removed; but it has not the power to assume in advance that all the sinks and privies in a city are or will become nuisances or dangerous to public health, and bind the city by a contract for the removal of their contents. *Gregory vs. New York*, 40 N. Y., 273.

The power to abate a nuisance is limited to the removal of that in which the nuisance consists, and, where it is the wrongful use of property that constitutes the nuisance, the remedy is to stop such use, and not to tear down or demolish the building. *Melch vs. Stowel*, 2 Doug., Mich., 532; *Moody vs. Board Supervisors*, 46 Barb. 659.

Parties may subject themselves to the penalty prescribed by statute for a violation of any lawful regulation enacted by a Board of Health. In some instances it has been held that the Board of Health, by its regulation, may impose upon the person creating the nuisance the cost of its abatement, to be recovered by a proceeding against him, but he must have had notice and had an opportunity to be heard by the Board. *Health Department vs. Knoll*, 70 N. Y., 530, 536; *Harrison vs. Baltimore*, 1 Gill, Md. 264; *Hutton vs. Camden*, 23 Am. R. 207; *Salem vs. Eastern, etc., Co.*, 98 Mass. 431.

City corporations possess extensive power for the suppression of nuisances dangerous to public health, and when the power is possessed by the municipality, and a willingness exists to co-operate with the Board, it is well to leave the abatement of nuisances with municipal authority.

TRANSFER OF SMALL-POX PATIENT TO THE HOSPITAL.

Question 2. Can the local board of health make regulations requiring persons with the small-pox to be transferred to a hospital for such cases when it is necessary to do so to prevent the spread of the disease? I have heretofore considered to some extent the power of the board to make reasonable regulations for the preservation of the public health.

Whether a person having the small-pox will be treated as a public nuisance, dangerous to the life and health of the public, to be removed to a hospital without without his consent, depends upon the circumstances of each case. It is no crime for a man to be sick of a contagious disease in his own house even in a populous locality, or for his friends declining to remove him. Yet if he goes into a public way carrying the infection to the danger of the public, or if any one takes out an infected child, or a horse having a disease communicable by infection to man the party was guilty of a public nuisance, and was indictable at common law. 1 Bish. Crim. Law, sec. 490, 7th ed.; *King vs. Vanlanditts*, 4 Maule and Selwyn, R. 73; *King vs. Burnett*, 4 id. 272; *Regina vs. Henson*, 18 Eng. L. and Eq. 107.

A person sick of an infectious or contagious disease in his own house, who can be excluded from contact with the public, and in his isolation the contagion ceases to be dangerous to the public health, can not, in my opinion be removed to a public hospital without his consent. *Booth vs. City of Utica*, 2 Barb. 104; *Fisher vs. Clarke*, 41 Barb. 329, 331; *Mills vs. New York, etc., Co.* 2 Robertson, 326; *Eddy vs. The Board of Health*, 10 Phila. 94; *Wood's Law of Nuisance*, p. 68, sec. 66, 2d ed.; *Sherman & Redfield on Negligence*, sec. 193; *Walker vs. Heron*, 22 Tex. 55; 1 Thompson on Negligence, 205, 206, sec. 20.

In *Boom vs. Utica, supra*, it was held that a person sick of an infectious disease in his own house, or in suitable apartments, at a public hotel or boarding-house, is not a nuisance, and under a charter authorizing the Common Council to make and publish ordinances for abating and removing nuisances, they have no power to direct the removal of a person sick of an infectious or contagious disease from one place to another without his consent.

In *Fisher vs. Clarke, supra*, the court say: "A person sick with a contagious disease is not obliged to abandon his own house to prevent the spread of such disease. A house occupied by persons having an infectious disease is not a nuisance."

In *Eddy vs. Board of Health, 10 Phila., supra*, the court say: "The power of the Board of Health to abate nuisances and the causes of them and to enforce sanitary regulations is very great, and the courts never interfere with the legitimate use of their power; but, to the contrary, excuse an excessive exercise of the power in cases where there is great peril to the public health. But the exercise of a power which is clearly unlawful, and which has no great public necessity to excuse it, will be restrained by the courts, no matter how praiseworthy the motive may be which prompted it. The Board of Health, in view of the possible approach of cholera to our city last summer, took active and praiseworthy measures to guard the city against pestilence, and so far as relates to the lawful measures adopted by them for the removal of nuisances and all causes of disease, they have the hearty approval of all our citizens. When, however, they claim to remove citizens from their homes and close up their houses, they must have either the sanction of law for it or they must be justified by great public necessity, which demands such action because there is no other way to avert the threatened peril, upon the same principle that buildings may be blown up to prevent the spread of a great conflagration.

Thompson on Negligence, *supra*, uses the following language: "The keeping of animals having an infectious disease is not *per se* culpable negligence. The right of every one to use his own property as he pleases, for all the purposes to which such property is usually applied, is unlimited and unqualified up to the point where the particular use becomes a nuisance. Hence the keeping of animals having an infectious disease on one's own premises, although the adjoining premises have upon them other animals which are likely to be infected by the disease, is not unlawful, nor will it give the owner of the adjoining premises a cause of action for damages sustained in consequence of the disease being communicated to his animals, unless the person owning the diseased animals knows the fact that they are diseased, and is guilty of some negligence in the manner of keeping them."

Wood's Law of Nuisance, *supra*, says: "It is a public nuisance for a person afflicted with an infectious or contagious disease to expose himself in a public place whereby the health of others is jeopardized. So, too, it is an offense of the same character for a person to expose one afflicted with such a disease in a public place. So, too, a hospital for the reception and treatment of patients with contagious diseases established in a public place is a public nuisance, and indictable as such."

A pest house erected by town, municipal or county authorities near the premises of another, injuring the health of his family, or exposing them to contagious diseases, is a nuisance, for which an action will lie * * *. So, too, it is a public nuisance for a person to take a horse with glanders or other infectious diseases into a public place * * *. But a person sick in his own house or in a room in a hotel is not a nuisance.

In *Harrison vs. Baltimore (1 Gill. Md., 264)*, where the charter of the city provided "that the corporation aforesaid shall have full power and authority to enact and pass all laws and ordinances necessary to preserve the health of the city, pre-

vent and remove nuisances, to prevent the introduction of contagious diseases within the city, and, within three miles of the same," it was held that the City Council had full power to pass all laws and ordinances necessary to preserve the health of the city, prevent and remove nuisances, and prevent the introduction of contagious diseases within the city and within three miles thereof. The city within the specified limits was invested with all the legislative powers which the General Assembly could have exerted, and the Court says, "They might seek the accomplishment of their object by causing the vessel and all persons on board to be taken possession of and controlled until their purification and disinfection were effected, and impose on the captain, owner or consignee the payment or reimbursement of all the expense incurred by such proceeding." (P. 277.)

The Court says further: "We concur with the County Court in the rejection of the appellants' third prayer, that 'under the ordinance the health officer had no power to send to the small-pox hospital any but those persons who, when sent, were affected by the small-pox or varioloid disease, and that no expense incurred from the sending of any other persons can be recovered in this action.' The disposition to be made of persons affected with the small-pox or varioloid disease is not left to the discretion of the health officer. The ordinance peremptorily directs them to be sent to the small-pox hospital. But the discharge of this ministerial service is not the only duty imposed on the health officer by the ordinance in respect to the persons on board such vessel. He is further required to take or direct such measures in regard to the officers, crew and passengers as in his opinion may be necessary to disinfect them, and to prevent their propagating the disease. If then, in pursuing such measures, the health officer, acting with reasonable skill and judgment and with a sound and honest discretion, had sent others of the crew and passengers than those afflicted with the small-pox to the small-pox hospital, we can see no sufficient objection to its being done, or to the recovery of all reasonable expense incurred in their disinfection or purification, and during their necessary detention for the prevention of their propagation of the small-pox. (P. 282.) The persons referred to in the above case were strangers and away from home. In *Commissioner of Salisbury vs. Powe* (6 Jones, L., N. C., 134,) it was held that a town may, by ordinance, prohibit a person coming from a place infested by small-pox entering such town."

In *Bessonies vs. Indianapolis*, 71 Ind. 189, the Court held that "hospitals and houses for the sick are very far from being nuisances, *per se*." Under its police powers the city, by its law making authorities, might perhaps prescribe reasonable rules and regulations for drainage of the hospital grounds, the purification and proper ventilation of the buildings, for the removal therefrom of any person afflicted with infectious or contagious diseases, and for the general management and government of the hospital grounds and buildings, both internally and with relation to the adjacent and surrounding property."

In *Haag vs. Board of Commissioners*, 60 Ind. 511, it was held that a pest house erected on grounds belonging to the county, where persons with small-pox and other contagious and malignant diseases were treated, so near a dwelling house that the same became unhealthy and the owner's family were infected with the small-pox, was a nuisance.

If a disease shall become epidemic and the home of a patient shall become pestilential, there may be a necessity for the protection of the life and health of the public not only for the removal of the patient from such home, but the destruction of his property to prevent the ravages of pestilence. If such urgent necessity shall arise, the public safety becomes the supreme law of the State, and the Board would be justified in removing the patient from his home to a hospital, or to do

any other reasonably necessary act to abate nuisances dangerous to the public health.

In my opinion it is within the power of the Board of Health to enact reasonable and necessary regulations requiring persons infected with small-pox to be excluded from all contact with the public, and when such isolation can not otherwise be secured, to require their transfer to a hospital for such cases, reasonably and properly prepared for their reception and cure.

It is a power that springs from inexorable necessity, and regulations should be enforced as suggested and required by emergency, with a prudent regard for the security of the public, and without unreasonable arbitrary and oppressive exercise of power on the citizen.

FRANCIS T. HORD, *Attorney General.*

From this opinion, conferring upon municipal authorities and health officers such powers, we feel assured in saying that the continued prevalence of small-pox in any locality, is a reproach upon the industry, intelligence, and efficiency of the health and municipal authorities of the infected district.

SYPHILIS.

Nineteen persons, or .12 per cent. of the total mortality died from syphilis. Directly this disease is said to have destroyed that many. We think that if the remote and indirect evils of this disease were recognized, or acknowledged, a greater mortality would be charged to it. Last year .26 per cent. of the total mortality was from syphilis. Not only is this direct loss of life a source of regret, but attached to this malady is the unpleasant reflection that much of the suffering from it is unreported, and that the innocent and pure are as often the unhappy victims of its terrible ravages, as the vile and guilty. The article upon this subject by Dr. Lomax, on page 95, and that of Dr. Sweringen, on page 48, are but a repetition of the experience of every metropolitan physician.

I am not one who believes that syphilis is so alarmingly increasing that the entire community is in danger of falling victims to it; yet there is no doubt but that it is on the increase, and it is so loathsome in its effects, insidious in its approach, so infectious in its nature, and so far reaching in its deteriorating influences upon innocent women and children, that it must claim

the attention of the sanitarian. Various efforts have been made to regulate the evil by municipal authority. Laws providing for the punishment of licentiousness are universally recognized as just and right, yet the question of dealing with prostitution from a *hygienic* standpoint obtrudes itself. Prostitution has been legalized upon the part of the female under hygienic restrictions. So abhorrent to morality and religion, and so barren of good hygienic results have been these efforts, that they are now practically abandoned in America. Laying aside the moral aspect of this question, we fail to see any good results to be expected from licensed female prostitutes being placed under hygienic restrictions, while the male libertine is utterly unrestricted. One syphilitic male libertine may communicate the malady, not only to various undiseased prostitutes, but to his innocent wife and unborn children, and the trail of the serpent may extend through generations. Consequently we see no good reason for inspecting the harlot, while her brother in sin, who may have infected her and is still full of the virus, is allowed unrestrictedly to communicate the disease to all who become the gratifiers of his lust. If inspection and license are to be successfully resorted to, in arresting the course of syphilis, they must be made applicable to the male libertines and female prostitutes alike. The above applies only to the communication of the disease by impure sexual contact. This is the usual method of inoculation, but too many instances of its transmission by other means are on record to allow us to dismiss the subject without entering some word of protest, or a line of advice regarding it. So infectious are the secretions that it can be communicated by a kiss, by drinking vessels in hotels, cars, and other public places, by wash bowls, pitchers, towels, by napkins at the table, by pieces of coin taken into the mouth, by pen holders, pencils, paint brushes, being held in the teeth; by barbers utensils, by water closets, by children nursing, by vaccination, and many other channels. Consequently the public has a right to demand protection against its dangers. The attention of the American Public Health Association has been called to this matter for several years, and the result of the labors of a special committee upon the subject, headed by A. L. Gihon, M. D., Medical Director of the United States Navy, was the recommendation of the passage of a law to prevent the spread of contagious and infectious diseases, providing penalties

for "knowingly" communicating or being instrumental in communicating "directly or indirectly any contagious or infectious disease, such as small-pox, scarlet fever, or venereal disease;" and another section providing that, "if any person being the owner, agent, or occupant of house, room, or place, or shall have reasonable cause to believe any person therein to be affected with a contagious or infectious disease, and shall fail to notify the proper health authorities, he shall be punished." My own judgment is, the legislation in this direction is the proper remedy for the evils of syphilis.

ALCOHOLIC DISEASES.

Delirium tremens and intemperance caused directly forty-nine deaths, or .32 per cent. of the total mortality. Last year's report gave a mortality of .17 per cent. of the total mortality. This loss of life very inadequately represents the mortality indirectly dependent upon the excessive use of alcoholic liquors.

TABLE NO. I.

CLASS II.

CONSTITUTIONAL DISEASES.

The Constitutional Diseases caused a mortality of 2,540, or 17.1 per cent. of the total mortality, against a mortality of 15.1 per cent. of the total last year, an increase of 2 per cent. of the total mortality. This increase, in my opinion, conclusively proves that the report of deaths is more nearly complete than last year, the deaths from this class varying but little from year to year.

Of the Special Diseases, *cancers* in various organs produce 190 deaths, 1.27 of the total mortality. Last year's mortality from cancer was 1.02 per cent. of the total.

Rheumatism causes 61 deaths, .40 per cent. of the total mortality against .34 per cent. of the total last year. The open winter and backward spring, no doubt, added to the deaths from this disease.

Hydrocephalus caused 49 deaths, *tubercular meningitis* 71 deaths, and *scrofula* 74, which is no material change from last year.

Phthisis pulmonalis. This malady caused the death of 1,773 persons within the year, a mortality of 11.87 per cent. of the total mortality. Last year the mortality from this disease was 11.85 of the total deaths. This small variation is remarkable, and proves the uniform fatality attending the disease. In the United States during the year 1880 the mortality from this disease was about 12 per cent. of the total from all causes. We thus see that the mortality in our State is slightly below the usual average throughout the United States. This is gratifying, for, situated as our State is, almost entirely in the valley of the Mississippi, the surface of the State nearly level, and subject to such violent changes in temperature, with so much moisture in the atmosphere, we have been told that pulmonary troubles were of more than usual prevalence and fatality.

So far we have been unable to refute the charge. However, the result of the two years' statistics since the State Board of Health has been in existence justifies us in saying that the charge is unfounded. The average per cent. of mortality for ten years past in the State of Massachusetts has been 15.94 per cent. of the total mortality. In the State of New Hampshire, in 1882, it was 15.19 per cent. of the total mortality. A most interesting discussion is now going on in regard to this malady, and many strong arguments have been adduced in favor of the view of its being contagious; also the recent investigations of Koch, Pasteur, Cohnheim, Orth, Colin and others; the possibility of introducing the disease by inoculation and by food containing the virus, and also of the alleged discovery of the "tubercle bacilli," which is said to be the source of the infection. These questions are yet undecided, but we are safe in saying that pulmonary tuberculosis is near the border line dividing the zymotic from the constitutional class of diseases, and at present we are authorized in demanding the exercise of caution in associating with tuberculous patients. Children and persons of feeble vitality should avoid inhaling the breath of that class, and the sputa should be promptly disinfected and destroyed. Clothing and articles upon which the sputa or discharges have fallen or become attached should be disinfected. The rooms of the patients should be freely ventilated and purified by disinfection. And in view of the fact that there is very great probability of tuberculosis being induced by food containing the virus of the disease, meats which are diseased should be strictly guarded against, and the killing of cattle suffering from tuberculous disease prohibited. And as it appears to be indisputable that the milk from dairies in which cows are affected with tuberculous troubles will consequently be infected, great care should be exercised in avoiding milk from them; and we are persuaded that in some of the large dairies the disease is not at all uncommon.

Apoplexy killed 171 persons, or 1.14 of the total mortality. Last year 1.03 per cent. of the total deaths were from that cause. *Convulsions* are charged with 206 deaths, a mortality of 1.37 to the total against 1.77 per cent. last year. *Tetanus* destroyed 24 lives, *paralysis* 271, and *meningitis* 245. *Pneumonia* caused a loss of 1,353 lives, 9.08 per cent. of all the deaths. Last year the deaths from this disease were 9.58 per cent. of

the total, a very insignificant variation. *Diabetes* caused 39 deaths, or .27 per cent. of the total mortality. Last year it was .22 per cent. *Bright's disease*, or *Nephria*, caused a loss of 97 lives, or .64 per cent. of the total mortality. Last year it was .89 per cent. of the total. *Premature and still births* were 1,045, which is 7 per cent. of the total loss of life. Last year it was 9 per cent. This proportion is not excessive, comparatively, yet we are persuaded that considerable wanton destruction of human life is indicated by these figures. *Old age* is charged with 274 lives, 1.83 of the total mortality. Last year it was 1.19 per cent. of total. We think that in many instances the term "old age" covers the sin of ignorance of the true cause of death. *Debility* is said to have caused the death of 147 persons. A like criticism applies to this. *Violent deaths*: From these there were 740, or 4.95 per cent. of the total mortality. Last year this class of deaths amounted to 4.57 per cent. of the total. In the United States, in the year 1880, the mortality from violence was 4.66 per cent. of the total. It will thus be seen that we are about up to the average of the country at large. These causes are varied and interesting, as will be seen by consulting the table, page 226. Thus, the *buzz-saw* killed two; *burns*, thirty-five; *drowning*, seventy-five; fourteen *by a fall*; six *by falling trees*; *gunshot* wounds caused thirty-seven; *pistols*, seven; sixteen *scalded* to death, and thirty-five *accidentally poisoned*; twenty-two *murdered*; two *killed by mob*; two *judicially hanged*. An even one hundred, or .67 per cent. of the total mortality, was from *suicide*; last year it was .64 per cent. of the total.

The manner of suicide varied. Thirty-eight cases in which the mode was not stated. Eight preferred *cutting the throat*. Three *drowned* themselves. Five used the *gunshot* method, and nine preferred the *pistol*. Seventeen took "*cold poison*," while eighteen selected the most popular of all methods, *hanging*. Only three chose *opium*, and one *strangulation*.

Railroad accidents caused 121 deaths, or .81 per cent. of the total mortality. Last year it was .72 per cent. of the total. In the United States, during the year 1880, .31 per cent. of deaths from all causes were from *accidents* on the *railroads*. Our own State has such a large mileage of railroads (6,200 miles) that it is not surprising that a considerable mortality results from such causes. Yet so large a percentage of these deaths

is among their own employes that we feel like protesting against the continued use of any habit or means by which human lives are sacrificed. The habit of coupling or uncoupling cars by running in between the same and holding the pins or links in the hand is a dangerous one, and costs many lives annually. Also the frogs used in switch-yards are a most infamous contrivance. Several instances are reported where men had their feet caught in them and held fast while the cars came on and crushed them to death. It is a sickening thing to reflect upon—the awful situation of a strong, healthy man being held by one foot to stand and be crushed to death by a slowly moving car! That no improved system of coupling and uncoupling cars has been invented and brought into use is an opprobrium upon American inventive genius and ingenuity.

TABLE NO. 2.

DEATHS BY COUNTIES.

Showing total number of Deaths by Counties in the State of Indiana, arranged by Months and Sex, for the year ending September 30, 1888.

COUNTIES.	October.		November.		December.		January.		February.		March.		April.		May.		June.		July.		August.		September.		Male.	Female.	Total.
	October.		November.		December.		January.		February.		March.		April.		May.		June.		July.		August.		September.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Adams	9	4	4	3	8	4	9	9	2	4	9	2	6	3	2	9	3	12	4	3	4	16	6	50	40	90	
Allen	12	6	11	12	11	11	9	16	9	10	10	8	8	9	13	10	15	8	11	4	21	16	13	154	128	282	
Bartholomew	9	9	12	11	12	10	9	11	4	10	10	4	9	9	9	9	9	10	9	4	10	16	13	127	100	227	
Benton	7	2	1	1	1	4	2	3	8	4	4	1	2	2	4	5	1	1	4	4	4	4	4	4	42	37	79
Blackford	4	4	2	2	1	1	2	2	3	4	4	1	4	2	1	5	1	1	3	3	1	2	1	1	31	14	45
Boone	6	9	4	3	4	3	1	3	2	1	5	2	5	9	2	2	3	2	9	10	6	7	11	52	66	118	
Brown	3	3	1	1	8	8	6	3	2	7	7	7	3	2	2	4	4	5	7	3	4	3	2	29	27	56	
Carroll	5	11	9	1	5	5	6	9	11	3	5	13	5	1	4	4	4	6	11	12	8	9	9	79	92	171	
Cass	15	11	13	14	12	14	22	22	11	12	15	17	10	11	7	9	6	5	11	12	10	6	4	138	139	277	
Clark	2	3	2	2	2	4	1	3	9	1	6	3	10	15	9	19	10	3	6	9	2	7	7	75	63	138	
Clay	4	1	4	2	3	2	2	2	1	1	4	4	5	4	4	4	2	3	2	2	2	2	2	34	43	77	
Crawford	4	1	4	2	2	3	2	2	1	1	4	5	3	1	10	17	6	3	2	4	4	4	4	26	26	52	
Davies	10	11	11	6	12	7	10	9	13	16	10	7	7	11	17	10	14	1	5	8	15	7	12	116	86	202	
Dearborn	8	5	4	4	2	2	8	8	13	16	11	11	11	11	10	10	14	3	9	9	16	7	13	112	93	205	
Decatur	10	5	9	4	4	4	8	7	3	6	2	2	2	11	4	4	3	3	5	9	8	12	16	79	75	154	
Dekalb	3	3	5	2	4	4	2	2	3	2	5	3	5	1	6	6	3	13	6	9	6	9	16	38	48	86	
Delaware	11	11	7	4	7	6	3	3	9	11	9	10	8	5	8	8	11	13	7	11	10	10	11	88	96	184	
Dubois	5	6	9	3	3	9	4	5	6	6	3	5	4	4	3	3	4	4	8	4	4	5	5	62	61	123	
Elkhart	8	6	7	14	9	9	10	3	3	13	13	12	4	4	3	4	3	4	4	5	4	6	6	78	75	153	
Fayette	7	7	9	4	3	3	4	1	4	6	6	4	4	2	3	3	4	4	4	4	2	1	1	48	41	89	
Floyd	13	10	2	6	9	16	10	4	16	17	15	3	7	1	8	7	8	9	21	15	17	12	10	141	111	252	

[illegible]

TABLE NO. 2—Continued.

COUNTIES.	October.		November.		December.		January.		February.		March.		April.		May.		June.		July.		August.		September.		Male.	Female.	Total.
	October.		November.		December.		January.		February.		March.		April.		May.		June.		July.		August.		September.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Pulaski.....	8	11	3	2	7	5	6	2	2	6	4	6	15	2	8	2	3	3	2	3	11	3	2	8	19	16	35
Putnam.....	7	12	5	12	1	14	11	15	12	5	9	10	13	9	6	6	10	10	11	6	11	6	14	97	85	182	
Randolph.....	6	7	7	9	4	6	8	12	8	11	1	4	4	8	7	5	5	8	7	7	7	9	3	73	68	139	
Ripley.....	6	7	8	13	6	8	6	12	8	11	1	4	4	8	7	5	5	8	7	7	7	9	3	75	68	163	
Rush.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	4	10	
Scott.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	4	10	
Shelby.....	8	12	8	10	6	7	3	8	7	1	8	4	5	9	4	3	3	10	3	2	10	15	5	5	83	81	164
Spencer.....	7	11	4	11	9	16	20	12	12	5	6	4	7	6	2	2	2	2	3	3	2	2	10	9	87	101	188
Starks.....	1	3	1	3	1	1	1	7	3	2	1	1	1	1	1	1	2	4	3	3	4	6	3	5	24	15	39
Steuben.....	3	3	2	1	1	1	10	7	4	4	7	10	1	1	3	3	6	2	2	3	2	2	3	3	43	73	116
St. Joseph.....	8	8	6	9	7	5	4	3	3	2	2	5	5	2	14	2	4	7	2	2	7	8	7	11	69	85	154
Sullivan.....	9	8	6	9	6	7	3	3	2	2	2	5	5	2	1	2	6	4	4	2	9	2	12	71	58	129	
Switzerland.....	1	2	5	1	3	2	3	2	3	5	5	5	3	1	3	1	3	3	2	5	2	2	3	5	32	35	67
Switzerland.....	9	11	12	10	9	8	4	5	6	4	4	12	6	18	11	3	2	18	6	12	17	17	14	133	114	247	
Tippecanoe.....	8	13	2	1	3	3	4	3	8	4	6	4	6	4	3	3	1	5	3	5	3	6	3	6	54	55	109
Tipton.....	1	1	1	1	2	2	2	2	1	2	4	2	2	2	19	3	2	4	4	1	3	1	4	21	18	39	
Union.....	1	27	31	21	34	29	39	27	49	18	35	29	24	28	1	28	38	21	45	27	33	38	27	409	296	705	
Vanderburg.....	5	1	1	1	2	2	1	1	1	2	1	1	1	1	1	1	3	1	1	1	1	1	4	20	16	36	
Vermillion.....	5	1	1	1	2	2	1	1	1	2	1	1	1	1	1	1	3	1	1	1	1	1	4	20	16	36	
Vigo.....	17	15	21	23	17	16	20	21	21	19	37	37	23	23	15	20	35	20	35	36	25	23	26	281	261	542	
Wabash.....	2	3	4	3	4	6	8	7	6	12	22	22	9	11	1	5	5	5	4	4	2	4	2	2	69	51	120
Warren.....	3	3	1	1	4	5	4	5	5	4	4	4	4	4	4	2	2	4	4	5	4	4	4	4	50	41	91
Warrick.....	8	3	6	2	8	8	8	4	7	12	11	6	5	4	4	4	4	5	4	5	10	5	3	89	62	151	
Washington.....	12	5	6	4	1	4	13	12	1	1	12	5	6	6	4	4	3	1	1	13	11	16	16	86	70	156	
Wayne.....	20	19	25	20	23	30	28	31	19	34	29	21	16	12	13	17	25	28	25	26	25	24	24	27	283	238	521
Wells.....	4	1	1	1	1	1	3	3	1	1	3	4	1	2	2	1	1	1	4	3	5	4	2	4	19	18	37
White.....	5	11	9	1	8	2	5	10	6	5	10	10	9	8	5	5	5	4	7	7	4	4	8	65	43	108	
Whitley.....	5	11	9	1	8	2	5	10	6	5	10	10	9	8	5	5	5	4	7	7	4	4	8	65	43	108	
Total.....	652	613	563	493	579	569	642	611	679	607	702	637	661	581	606	539	518	507	655	627	789	694	714	687	7,760	7,165	14,925

TABLE NO. 2.

DEATHS BY COUNTIES AND MONTHS.

Counties.

This table is interesting only as an index of the completeness of the reports of deaths in the various counties. Where the residents of large cities and towns comprise the principal portion of the inhabitants, where burial permits, based on death certificates are required, the reported mortality is much greater proportionally than in counties having smaller towns, where no burial permits are required. We do not give per cent. of mortality, feeling that it would be unjust and an incorrect statement of the mortality in full.

Months.

The table which I give below is the comparative monthly mortality with that of last year, based upon an estimate of the nine months' report. It will thus be seen that November and June were the healthiest months, and that August and September were the unhealthiest. This accords with the observation of all physicians. In November the fall sickness resulting from the malarial fevers and intestinal disorders has abated; the winter sickness, the severe fevers and the respiratory diseases have not yet appeared. In June, the diseases resulting from the cold, wet weather of spring have ceased and the summer sickness has not yet appeared.

Exhibit of Monthly Mortality with Per Cent.

MONTHS.	1882 and 1883.		1881 and 1882.	
	Total.	Per Cent. of Total Mortality.	Total.	Per Cent. of Total Mortality.
October	1265	8.47	*1267	*8.31
November	1056	7.07	*1267	*8.31
December	1148	7.69	*1268	*8.31
January	1253	8.39	208	1.36
February	1286	8.61	1573	10.34
March	1039	8.97	1798	11.82
April	1242	8.32	1462	9.61
May	1145	7.77	1268	8.34
June	1025	6.86	1175	7.66
July	1282	8.59	1399	9.20
August	1483	9.93	1489	9.79
September	1401	9.33	1026	6.75
Total	14925	100.00	15200	100.00

* Estimated.

TABLE

GROUPED AGES—

Showing total number of Deaths occurring in the State of Indiana,

CLASS ONE—ZYMOTIC DISEASES.	GROUPED											
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—MIASMATIC.												
Carbuncle	..	1	..	..	..	..	..	..	2	..	..	..
Choleraic Diarrhea	..	1	..	..	1	..	..	..	1	..	1	1
Cholera morbus	3	1	2	..	3	5	1	1	..	..	..	..
Cholera infantum	197	178	70	62	19	47	15	23	3	4	1	6
Congestive chill	5	3	..	..	2	4	1	1	..	..	..	..
Croup	27	18	60	58	19	8	15	23	3	4	1	..
Diphtheria	15	8	67	69	41	47	1	4	1	1	..	2
Diarrhea	18	15	3	14	1	1	2	2	1	5	2	4
Dysentery	19	25	26	22	4	2	3	2	1	1	..	..
Enterocolitis	7	7	2	4	..	..	1	1	2	1	..	..
Erysipelas	10	11	1	6	1	3	1	3	4	4	3	3
Fever, cerebro-spinal	26	20	32	38	13	15	17	15	11	6	4	3
Fever, catarrhal	15	2	1	3	1	1	1	1	1	1	..	..
Fever, continued	2	..	4	9	4	1	5	5	11	8	3	4
Fever, congestive	..	1	1	2	..	..	..	..	1	1	2	1
Fever, intermittent	6	5	2	6	1	1	1	1	1	1	..	..
Fever, malarial	8	5	11	12	3	4	6	9	9	13	11	10
Fever, pernicious	..	2	1	1	..	..	3	3	2	2	..	..
Fever, remittent	5	1	8	3	1	3	3	1	4	1	2	..
Fever, relapsing	9	3	29	22	19	19	3	7	1	..	..	..
Fever, scarlet	6	..	18	18	17	25	70	85	98	66	36	33
Fever, typhoid	2	..	6	10	3	1	8	10	10	13	6	7
Fever, typho-malarial	1	1	..	..	2	2	6	5	5	5	4	1
Gangrene	19	15	41	15	9	3	6	5	1	..	..	..
Measles	1	..	1	1	..	..	..	1	1	..	..	1
Mumps	46	48	32	49	4	1	1	1	..	..	..	..
Pertussis	2	..	1	4	3	1	5	8	2	5	5	5
Pyemia	5	4	8	9	17	11	16	12	29	25	21	8
Small-pox	1	1	1	..	1	1	..	2	3	8	..	11
Septæmia	..	..	1	..	..	..	..	..	..	..	..	..
Urticaria	..	..	..	..	..	..	..	..	..	..	..	..
Total	455	368	437	439	162	161	167	194	210	171	102	105
ORDER TWO—ENTHETIC.												
Syphilis	5	4	..	1	..	..	..	..	1	2	1	2
Total	5	4	..	1	..	..	..	..	1	2	1	2
ORDER THREE—DIETIC.												
Delirium tremens	..	..	..	..	..	..	..	1	..	7	..	..
Inanition	78	71	7	4	2	..	..	4	..	3	..	..
Intemperance	..	..	2	..	..	..	..	..	..	6	..	..
Purpura	2	1	2	..	..	..	2	6	1	1	..	..
Total	80	72	11	4	2	..	2	10	2	4	13	..
ORDER FOUR—PARASITIC.												
Aphthæ	1	..	1	..	..	..	..	..	..	..	..	..
Elephantiasis	..	..	..	1	..	..	..	..	..	..	..	..
Thrush	2	..	..	..	..	..	..	..	..	..	..	..
Total	3	..	1	1	..	..	..	..	..	..	..	..
Grand Total Zymotic Diseases.	543	444	449	445	165	161	169	204	213	177	116	107

NO. III.

ZYMOTIC DISEASES.

Grouped Ages and Sex, for the year ending September 30, 1883.

AGES.																Males.	Females.	Grand Total.	
40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'ted					
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	4	2	6
1	..	..	2	4	1	1	2	..	..	..	..	..	..	1	2	15	7	22
1	3	2	..	2	3	1	..	1	..	..	..	..	..	1	1	273	247	520
..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	7	117	85	202
2	2	4	..	4	2	4	3	1	1	2	1	2	1	2	8	150	159	309	
2	2	2	5	3	8	7	1	2	3	1	1	..	..	3	3	43	43	86
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	76	83	159
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	12	22
3	6	3	3	3	6	6	1	3	1	2	..	..	..	..	3	35	50	85
3	5	3	1	1	1	1	1	1	3	1	2	..	..	1	1	112	106	218
1	4	3	3	1	1	..	4	1	3	1	..	..	..	2	..	22	11	33
2	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	42	31	73
2	1	1	1	1	1	7	3	4	3	1	..	..	..	..	..	8	8	16
7	3	7	2	4	4	4	3	4	3	1	..	..	..	2	3	79	71	150
..	..	..	..	1	..	3	1	..	3	..	..	..	..	..	..	8	7	15
1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	3	26	23	49
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
23	17	20	15	11	15	11	8	1	3	1	3	1	2	2	9	9	63	51	114
3	9	4	2	2	5	2	4	1	2	1	2	1	..	1	1	320	294	614	
..	..	..	..	4	1	5	3	..	..	..	..	..	..	..	..	48	63	111
1	3	1	1	1	1	1	..	..	..	..	..	..	..	1	1	16	17	33
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	88	52	140
..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	2	4
2	..	2	2	5	..	3	..	1	..	..	..	..	..	..	1	83	100	183
7	4	4	5	2	2	3	..	1	..	..	..	..	..	3	1	33	22	55
1	2	1	2	1	3	..	1	..	..	..	..	..	..	14	11	121	92	213
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	9	31	40
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
62	63	62	47	52	53	57	32	18	20	4	3	..	1	52	52	1,841	1,709	3,550	
1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	9	10	19
1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	9	10	19
5	3	3	..	1	6	4	3	..	1	1	1	..	..	1	3	18	..	18
12	6	..	3	..	3	..	..	1	1	..	..	..	..	2	..	100	93	193
..	..	1	1	..	..	..	..	1	1	..	..	..	..	1	..	31	..	31
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	9	18
17	3	9	1	11	4	3	..	3	1	1	..	..	..	4	3	158	102	260
..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	2
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	4	2	6
80	66	71	48	64	58	60	32	21	21	5	3	..	1	56	56	2,012	*1,823	3,835	

TABLE

GROUPED AGES—

Showing total number of Deaths occurring in the State of Indiana,

CLASS TWO—CONSTITUTIONAL DISEASES.	GROUPED											
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—DIATHETIC.												
Anasarca			1	2	3	1	1		1	4	1	1
Anæmia	1	1	1	2						4	2	5
Ascites			1		1	3	5	4	6	1	5	1
Cancer	1					1		1	1	1		1
Cancer of Abdomen												
Cancer of Breast										1		1
Cancer of Bladder												
Cancer of Bowels												1
Cancer of Duodenum											1	
Cancer of Eye												
Cancer of Foot									1			
Cancer of Face												
Cancer of Kidney												
Cancer of Liver			1									
Cancer of Muscles												
Cancer of Rectum							1				1	
Cancer of Scrotum	1									1	1	
Cancer of Shoulder											3	
Cancer of Stomach												1
Cancer of Tongue												5
Cancer of Uterus								1		2		
Chlorosis								1		2		
Dropsy	1		4	4		2	4	4	1	2	3	5
Gout										1		
Leucocythæmia								1		1	1	1
Lymphadenoma									1			
Prostate Gland, Enlargement of			1	1	3	2	11	5		1	5	3
Rheumatism							1	2	2	1	1	1
Rheumatism, Inflammatory			1					2				
Rheumatic Disease of Heart			1					1				
Total	4	1	11	9	7	9	23	19	19	19	29	26
ORDER TWO—TUBERCULAR.												
Abscess Psoas							1			1	3	
Glands, Disease of		1								1		
Hydrocephalus	13	14	5	6	3	1	2		1		1	
Morbus Coxarius			1				1				2	1
Mesenteric Glands, Atrophy of												
Meningitis Tubercular	16	12	11	11	5	3	2	3	1	2	1	1
Phthisis Pulmonalis	15	13	14	16	4	11	68	151	191	348	150	229
Pott's Disease			1								1	
Rachitis												
Scorbutus												
Scrofula	15	5	9	10	2	3	4	4	7	5		2
Tuber Mesenterica	6	4	2	3	1	2			1	1	3	1
Total	65	49	44	46	16	20	78	158	201	359	161	234
Grand Total Constitutional Diseases	69	50	55	55	23	29	101	177	220	378	190	260

NO. III.

CONSTITUTIONAL DISEASES.

grouped Ages and Sex, for the Year ending September 30, 1883.

AGES.																Male.	Female.	Grand Total.		
40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100		Not Rep'd.						
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.					
2	3	7	4	8	4	4	7	1	1	1	1	1	1	2	1	30	27	57		
3	1	2	1	1	1	2	3	1	1	1	1	1	1	1	1	15	24	39		
2	2	4	2	5	5	7	2	2	1	1	1	1	1	2	1	27	18	45		
1	8	7	7	5	8	7	1	1	1	1	1	1	1	1	1	30	36	66		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11	11	22	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
2	2	2	2	1	4	1	2	1	1	1	1	1	1	1	1	6	6	12	12	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6	
2	5	5	6	9	2	5	4	2	2	1	1	1	1	1	1	27	18	45	45	
9	9	8	8	1	8	8	2	3	3	1	1	1	1	1	1	1	32	32	64	
2	8	9	7	8	8	8	8	3	3	1	1	1	1	4	2	47	54	101	101	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	10	
2	1	3	3	3	2	6	1	1	1	1	1	1	1	1	1	36	19	55	55	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6	6	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6	6	
18	40	35	48	39	46	37	37	8	6	3	1	1	1	12	7	245	268	513	513	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	2	7	7	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6	6	12	12
94	115	63	73	54	37	23	26	6	4	1	1	1	1	1	1	39	32	71	71	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	712	1,061	1,773	1,773	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
1	2	1	2	1	3	2	2	1	1	1	1	1	1	1	1	38	36	74	74	
2	1	1	1	4	1	2	1	1	1	1	1	1	1	1	1	22	16	38	38	
101	120	64	76	59	41	25	28	7	4	1	1	1	1	33	38	854	1,173	2,027	2,027	
119	160	99	124	98	87	62	65	15	10	3	1	1	1	45	45	1,099	1,441	2,540	2,540	

TABLE

GROUPED AGES—

Showing total number of Deaths occurring in the State of Indiana,

CLASS THREE—LOCAL DISEASES.	GROUPED											
	Under 1		1 to 5		5 to 10		10 to 20		20 to 30		30 to 40	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER 1—NERVOUS SYSTEM.												
Apoplexy	2	1			1		3		4	4	4	3
Arachnitis		1										
Abscess of Brain					1		1		1			
Abscess of Spine									2			
Brain Fever	12	3	4	3		6	1	1		1		
Brain, Compression of		2		1								
Brain, Congestion of	48	30	22	21	6	4	4	3	6	2	7	2
Brain, Disease of		4	2	2	1		2			1	1	
Brain, Effusion of							1			1		
Brain, Hemorrhage of	1	1			1		2			2	1	
Brain, Hyperæmia of									1			
Brain, Inflammation of	21	7	6	11	7	6	4	2	4	6	2	1
Brain, Paralysis of												
Brain, Softening of	1	1	2				1			2	3	4
Cerebretis	2	4	1	4	1	1	2	2	1			
Chorea												
Convulsions	76	50	19	26	3	3	3	4		10	1	3
Epilepsy	2	1		5	2	2	7	2	9	7	2	5
Hemicrania												
Insanity									1			1
Inflammation			2									
Locomotor Ataxia							1					
Muscular Atrophy											1	
Meningitis	33	40	43	44	15	17	8	10	5	6	3	3
Myelitis						1	1					
Neuralgia	1											1
Nervous Exhaustion								3	1	1		1
Neuroma												
Paralysis	1		1	5	2	1	1	7	6	3	2	4
Spine, Disease of	2		2	3	3	1	2	1	2	1		
Spine, Congestion of		1		1								
Spine											1	
Stenosis of Spinal Cord	1									1		
Spasms	16	11	2	4	1	1				1		
Thrombosis Cerebral												
Tetanus	2	2	2	1	1	1	6		3	1		1
Trismus Nascentium	8	1					1					
Tumor of the Brain							1					
Total	229	160	108	131	45	45	49	39	47	50	28	29
ORDER TWO—CIRCULATORY.												
Aneurism								1	1	1		
Angina Pectoris												
Arteries, Ossification of	1											
Arteries, Inflammation of												
Blood Vessel, Rupture of										1		
Congestion	7	4	3		2	1		2	3	4		2
Endocarditis						1		1	1			1
Embolism							1		1		1	2
Hemorrhage	1											2
Hydropericardium			1			1	3	1		1		3
Heart, Abscess of	1											
Heart, Clot									1	2		
Heart, Disease of	2	1			1	2	2	8	5	7	4	12
Heart, Congestion of												
Heart, Dilatation of										1		1
Heart, Fatty		1										

NO. III.

LOCAL DISEASES.

Grouped Ages and Sex, for the year ending September 30, 1883.

AGES.																Males.	Females.	Grand total.
40 to 50		50 to 60		60 to 70		70 to 80		80 to 90		90 to 100		Over 100		Not Rep'td.				
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
9	4	15	14	23	18	21	22	9	4	1	1			5	3	97	74	171
	1			1												4	1	5
		1														2		2
																18	15	33
5	4	4	3	4	3	1	1							6	3	115	76	191
2		1	1													9	8	17
																1	1	2
2		4	1	1	3			1	2					1		14	9	23
																1		1
2	2	4		1	3	2	1	1		1				1		56	39	95
				1	1											1	1	2
2		3	5	10	1	5	2	2						1		30	15	45
	1	2	1	2												11	13	24
2	2	1			1											1	3	4
2	4	3	2	2	1	1	2							2	2	104	102	206
3					1	1								1	1	32	32	64
1	2		1		1	1										3	4	7
																2		2
		3				1										5		5
																1	1	2
2	3		3	2		1		1						2	4	115	130	245
1			1	1												3	3	6
			1											1		2	2	4
	1	1	3			2	1	1		1						4	11	15
																1		1
10	10	23	16	33	30	36	52	11	9	2	1			5		133	138	271
		1		1	2	1								1		15	8	23
																1	2	3
																2	4	6
1		1				1										19	17	36
																1	7	8
1	1	2		1												10	1	11
														1		3	1	4
				1										1		8		8
43	35	70	53	86	64	77	81	25	16	4	2			28	15	839	720	1,559
	1		1	1		1										3	4	7
		2				2										5		5
																1		1
			1															
3	3	3		1	1		1									22	20	42
2		2	1													2	3	5
1	1	2				2		1								7	4	10
1		1	3	4	2		3									11	17	28
																1		1
1	1	1				1										1		1
11	11	17	9	24	10	18	19	4	4		1			3	6	91	90	181
						1										1		1
1	1		1													1	4	5
		3	5	2	4	1										6	1	17

TABLE NO.

CLASS THREE—LOCAL DISEASES.	GROUPED											
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER TWO—CIRCULATORY—Continued.												
Heart, hypertrophy of . . . . .	.	.	.	.	.	1	.	.	.	.	.	2
Heart, neuralgia of	1	.	.	1	.	.	.	2	1	.	2	1
Heart, paralysis of . . . . .	.	1	.	.	1	.	3	1	3	2	3	2
Heart, valvular disease of . . . . .	.	.	.	.	1	1	.	1	1	3	.	2
Pericarditis . . . . .	.	.	.	.	.	.	.	.	.	1	.	.
Phlebitis . . . . .	.	.	.	.	.	.	.	.	.	.	.	.
Syncope . . . . .	.	.	.	.	.	.	.	.	.	.	.	.
Total	13	7	3	2	4	6	10	17	18	23	10	30
ORDER THREE—RESPIRATORY.												
Asthma	2	1	1	1	.	.	.	1	1	.	.	.
Apnea	1	.	1	.	.	.	.	.	.	.	.	.
Angina trachealis	1	.	.	.	.	.	.	.	.	.	.	.
Bronchitis	57	39	24	28	4	14	.	2	7	8	8	2
Catarrh, bronchial	2	.	1	.	.	.	.	1	.	.	.	.
Catarrh, capillary . . . . .	.	2	.	.	.	.	.	.	.	.	.	.
Catarrh, senile . . . . .	.	.	.	.	.	1	.	.	.	.	.	.
Emphysema . . . . .	.	.	.	.	1	.	.	.	3	.	1	.
Empyema . . . . .	.	.	.	.	.	.	.	.	1	.	.	.
Hydrothorax	1	.	.	.	.	.	.	1	1	1	.	.
Hæmoptysis . . . . .	.	.	.	.	.	.	.	.	1	.	.	.
Lungs, abscess of . . . . .	.	.	.	1	.	2	1	1	1	1	1	1
Lungs, congestion of	25	20	6	8	5	3	1	1	1	2	4	5
Lungs, disease of	6	3	.	2	.	.	.	.	.	.	.	.
Lungs, hepatization of	1	.	.	1	.	.	.	.	2	5	2	.
Lungs, hemorrhage of . . . . .	.	.	.	.	2	.	.	.	1	1	.	.
Lungs, oedema of . . . . .	.	.	.	.	.	.	.	.	1	1	3	.
Lungs, ulceration of	7	6	14	15	4	2	1	.	2	2	3	.
Laryngitis . . . . .	.	.	.	.	.	.	.	.	.	.	.	.
Larynx, tumor of . . . . .	.	.	.	.	.	.	.	.	.	.	.	.
Pneumonitis	128	66	85	71	19	12	35	40	53	44	44	36
Pneumonitis-typhoid	2	2	2	2	2	11	11	9	8	8	4	12
Pneumonitis-pleuro	2	.	.	1	.	.	.	1	6	1	3	2
Pleurisy . . . . .	.	.	.	.	1	.	.	1	2	.	1	3
Trachea, tumor of . . . . .	.	.	.	.	.	.	.	.	.	.	.	.
Throat, ulceration of . . . . .	.	.	1	.	.	.	.	.	.	.	.	.
Edema of glottis . . . . .	.	.	.	2	.	.	.	1	.	.	.	.
Total	235	139	135	132	38	32	51	59	89	74	71	61
ORDER FOUR—DIGESTIVE.												
Abdomen, tumor of . . . . .	.	.	.	1	.	.	.	.	.	.	.	1
Bowels, abscess of . . . . .	.	.	.	.	.	.	.	.	.	.	.	.
Bowels, congestion of	10	6	.	2	.	1	.	1	1	.	.	2
Bowels, hemorrhage of	3	1	1	1	.	.	.	1	2	.	1	1
Bowels, inflammation of	20	7	4	4	1	1	1	1	4	3	2	.
Bowels, occlusion of	1	3	.	.	.	.	.	.	.	.	.	2
Bowels, obstruction of . . . . .	.	3	.	.	.	1	1	1	1	.	1	1
Bowels, paralysis of	1	.	.	.	.	.	.	.	.	.	.	.
Bowels, tumor of . . . . .	.	.	.	.	1	.	.	.	.	.	.	.
Bowels, ulceration of	1	.	3	.	.	.	.	.	.	.	1	.
Cirrhosis . . . . .	.	.	.	.	.	.	.	.	.	.	1	.
Colic . . . . .	.	1	.	.	1	.	.	.	.	.	.	.
Colitis	5	9	1	2	.	1	.	.	.	1	.	1
Constipation . . . . .	.	1	.	.	.	.	.	.	.	.	.	.
Colon, ulceration of . . . . .	.	.	.	.	.	.	.	.	.	.	.	.
Dyspepsia . . . . .	.	.	1	.	.	.	.	.	.	.	.	1
Enteritis	22	19	12	19	1	2	2	1	6	5	3	4
Gastritis	6	5	2	1	1	.	1	1	4	8	3	3
Gastro-enteritis	7	4	3	2	1	1	.	.	3	4	1	.
Gall stones . . . . .	.	.	.	.	.	.	.	.	.	.	.	.
Hemorrhoidal tumor . . . . .	.	.	.	.	.	.	.	.	.	.	1	.
Hepatitis . . . . .	.	.	1	.	.	.	.	.	3	.	.	3
Hernia	2	.	.	.	.	.	.	.	1	.	.	.

III—Continued.

AGES.																Male.	Female.	Grand Total.
40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'ted				
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
1	1	1	1	1	1	1	2	2	1	2	2	2	2	2	2	4	3	7
3	4	2	8	10	2	4	11	6	2	2	2	2	2	2	2	1	5	6
7	4	7	2	9	2	2	10	3	3	3	3	3	3	3	3	20	11	31
1	1	2	2	2	3	2	6	3	3	3	3	3	3	3	3	43	39	82
1	1	2	2	2	1	2	2	2	2	2	2	2	2	2	2	8	16	24
1	1	2	2	2	1	2	2	2	2	2	2	2	2	2	2	1	1	1
1	1	2	2	2	1	2	2	2	2	2	2	2	2	2	2	1	1	1
30	29	39	33	54	35	43	35	4	7	1	1	1	1	5	12	233	237	470
4	2	5	4	3	1	3	1	2	1	1	1	1	1	1	1	12	22	34
8	4	6	6	8	12	6	25	6	3	1	1	1	1	3	2	136	145	281
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	4	7
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	3	9
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3
5	2	5	1	3	2	5	4	3	1	1	1	1	1	3	2	9	3	12
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	66	51	117
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	12	21
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11	10	21
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	38	26	64
58	31	70	34	69	55	63	51	24	16	3	2	20	31	20	31	1	489	1,160
17	13	10	6	12	10	4	1	7	2	1	1	3	6	1	6	75	69	144
4	1	5	3	4	2	2	1	1	1	1	1	1	1	1	1	28	21	49
1	1	1	1	3	2	2	1	1	1	1	1	1	1	1	1	13	6	19
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
99	60	104	60	112	96	84	96	38	23	3	5	1	1	34	44	1,093	881	1,974
2	2	2	1	1	2	1	4	1	1	1	1	1	1	3	1	1	6	6
1	1	1	1	2	5	2	2	2	2	2	2	2	2	1	2	19	19	38
1	1	1	3	3	1	1	1	1	1	1	1	1	1	2	2	13	5	18
1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	41	28	69
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	6	8
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	11	17
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	3	11
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	6
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	14	22
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	1	7
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	57	71	128
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	40	37	77
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22	21	43
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	10	7	17
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	2	7

TABLE NO.

CLASS THREE—LOCAL DISEASES.	GROUPED											
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER FOUR—DIGESTIVE—Continued.												
Hernia, strangulated.	1	..	1	..	..	..	..	..	1	..	..	..
Hydroperitoneum	..	1	1	1	..	..	..	..	..	..	..	1
Illcus.	..	1	2	1	..	..	..	1	..	1	..	3
Intussusception	4	1	1	1	..	..	..	..	..	..	..	..
Indigestion, chronic.	5	3	1	1	..	1	1	..	1	..	..	2
Jaundice	..	..	..	1	..	1	1	..	1	..	..	..
Liver, atrophy of.	..	..	..	..	..	1	..	1	..	1	1	2
Liver, abscess of.	..	..	..	..	..	1	..	3	1	2	2	3
Liver, cirrhosis.	..	..	..	..	..	..	..	1	2	2	2	1
Liver, congestion of.	..	..	..	..	..	..	1	..	..	..	..	..
Liver, disease of.	..	1	..	1	..	..	..	1	1	..	2	1
Liver, enlargement	..	..	..	..	..	..	..	..	..	..	..	..
Liver, fatty of.	..	..	..	..	..	..	..	..	..	..	..	..
Mouth, inflammation of.	..	..	1	1	..	..	..	..	..	..	..	..
Esophagus, contraction of	..	..	2	1	..	..	..	..	..	..	..	..
Peritonitis	3	5	2	1	6	3	5	3	5	21	2	9
Parotitis	1	..	1	..	..	..	..	..	..	..	..	..
Pharyngitis.	..	..	..	..	..	..	..	..	1	..	..	..
Rectum, ulceration of.	..	..	..	..	..	..	..	..	..	..	..	..
Regurgitation	..	..	..	..	..	..	..	..	..	1	..	..
Stomach, abscess of.	..	..	..	..	..	..	..	..	..	..	..	..
Stomach, congestion of.	3	2	2	2	1	1	1	1	3	2	3	3
Stomach and bowels, congestion of.	1	1	1	1	..	..	1	2	..	..	1	1
Stomach, disease of.	..	..	..	..	..	..	1	..	..	..	1	1
Stomach and bowels, disease of.	..	1	..	..	..	..	..	..	..	..	..	..
Stomach, hemorrhage of.	..	..	..	..	..	..	..	2	..	2	..	..
Stomach, neuralgia of.	..	..	..	..	1	..	..	..	..	..	..	..
Stomach, ulceration of.	..	1	..	..	..	..	1	..	1	1	1	1
Stomach, tumor of.	..	..	..	..	..	..	..	..	..	..	..	..
Spleen, disease of.	..	..	..	..	1	..	..	1	1	1	..	..
Stomatitis	4	2	..	2	..	..	3	1	..	..	..	..
Tonsillitis	..	..	3	3	1	1	3	..	..	..	..	..
Total.	100	77	44	46	16	13	13	14	46	51	30	45
ORDER FIVE—URINARY—												
Albuminuria.	..	..	..	..	..	..	..	..	2	..	..	2
Bladder, disease of.	..	..	..	..	..	..	..	..	..	..	..	..
Bladder, hemorrhage of.	..	..	..	..	..	..	..	..	..	..	..	..
Bladder, rupture of.	..	..	..	..	..	..	..	..	..	..	..	..
Bladder, tumor of.	..	..	..	..	..	..	..	..	..	..	..	..
Calculus	1	..	..	..	..	..	..	..	..	..	..	..
Cystitis.	..	..	2	..	2	..	1	2	2	1	3	1
Diabetes	..	..	..	..	1	..	2	2	2	1	1	1
Kidneys, abscess of.	..	..	..	..	..	..	..	..	..	..	..	..
Kidneys, disease of.	..	..	..	..	..	..	1	..	..	1	1	..
Kidneys, fatty.	..	..	..	..	..	..	1	..	..	..	..	..
Kidneys, ulceration of.	..	..	..	..	..	..	..	..	..	..	..	..
Nephria (Bright's disease).	..	2	2	..	3	1	4	3	3	5	6	2
Nephritis.	..	..	2	1	1	2	1	4	2	2	2	2
Prostatitis	..	..	..	..	..	..	..	..	..	..	..	..
Urine, suppression of.	..	1	..	..	..	..	..	..	1	..	..	..
Urethra, stricture of.	..	..	..	..	..	..	..	..	..	1	..	..
Uræmic poisoning.	1	..	..	2	..	..	2	1	1	..	..	2
Total.	2	3	4	4	4	4	12	7	10	12	14	14
ORDER SIX—GENERATIVE ORGANS.												
Metritis.	..	..	..	..	..	..	..	..	4	..	..	1
Ovaritis	..	..	..	..	..	..	..	1	1	..	..	..
Ovariectomy.	..	..	..	..	..	..	..	..	..	..	..	..
Ovarian tumor.	..	..	..	..	..	..	..	..	..	..	..	1
Testicles, inflammation of.	..	..	1	..	..	..	..	..	..	..	..	..

TABLE NO.

CLASS THREE—LOCAL DISEASES.	GROUPED											
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER SIX—GEN. ORGANS—Continued.												
Uterine, tumor
Uterus, disease of	4	.	2
Uterus, ulcer of
Vicarious menstruation	1	.	.	.	.
Womb, catarrh of	1	.	.
Total	1	.	.	.	.	2	.	10	.	4
ORDER SEVEN, OSSEOUS AND LOCOMOTORY.												
Abscess, ischio-rectal	1	.	.	.	.
Caries of vertebra	1	.	.	.	.
Femur, inflammation of	1	.	.	.	.	.	.	.	.	.	.
Medullary tumor
Necrosis	1	.	.	.	1	.	1	2	.	.	1	.
Otorrhoea	1	.	.	.	.	.	.	.
Pelvic bones, ulceration of	1
Total	1	1	.	.	1	.	1	3	.	.	1	1
ORDER EIGHT—INTEGUMENTARY.												
Abscess	1	1	1	1	2	1	3	2	2	2	2	1
Abscess of antrum of highmore
Abscess of ear	1	.	.	.	.	.	.	.	.	.	.
Abscess, lumbar	1	.	.	.	.	.	.
Abscess, mastoid	1	1	.	.	.	.	.	.	.	.	.	.
Abscess of nates
Abscess of parotid gland	1	.	.	.	.	.	.	.	.	.
Abscess, peritoneal
Abscess, prostatic	1
Cellulitis
Umbilicus, ulceration of	1	.	.	.	.	.	.	.	.	.	.
Ulcer of legs
Ulcer, chronic	1	.	1	.	.	.	.	1	1	.
Total	2	4	3	1	3	2	3	2	2	3	3	2
ORDER NINE—MISCELLANEOUS.												
Ear, inflammation of	1	.	.	.	.	.	.	.	.	.	.
Keratitis	1	.	.	.	.	.	.	.	.	.
Tumor	1	.	.	.	1	.	1	.	2	1	.
Total	2	1	.	.	1	.	1	.	2	1	.
Grand Total Local Diseases	582	393	299	316	111	103	145	144	212	225	158	186

III—Continued.

AGES.																Males.	Females.	Grand Total.
40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'ted				
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	3	3
..	6	..	1	..	1	..	..	..	2	..	..	..	..	..	..	..	16	16
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	14	..	7	..	5	..	5	..	..	..	..	..	..	1	1	2	48	50
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	4	3	7
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	1	..	..	..	..	..	..	..	..	..	2	..	1	..	..	7	6	13
6	1	4	3	2	1	..	1	..	1	..	..	..	..	..	..	23	14	37
..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1	2
..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1
..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1	..	1
..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	4	2	6
7	2	5	4	3	3	1	1	..	1	..	..	..	..	..	1	32	26	58
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	6	..	2	..	..	2	1	..	..	..	..	..	..	1	1	4	15	19
..	6	..	2	..	..	2	1	..	..	..	..	..	..	1	1	5	16	21
249	205	289	211	353	259	273	258	87	58	8	9	2	..	94	95	2,859	2,460	5,324

TABLE

GROUPED AGES—

Showing total number of Deaths occurring in the State of Indiana,

CLASS FOUR—DEVELOPMENTAL DISEASES.	GROUPED											
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—CHILDREN.												
Atelectasis	7	5										
Anus, Imperfect	2											
Birth, Premature	139	106										
Birth, Injuries at	5	4										
Birth, Still	472	328										
Cyanosis	36	17										
Debility, Infantile	29	17		1								
Malnutrition	5	6										
Malformation	12	4		3	1							
Nursing Sore Mouth		1								1		
Prolapsus of Funis	1											
Spina Bifida	3	1		2								
Teething		4	2	1								
Umbilical Hemorrhage	4	1			1							
Umbilical Cord, Disease of	3	4										
Total	718	498	2	7	2					1		
ORDER TWO—WOMEN.												
Amenorrhœa							2		1			
Climacteria												
Child Birth, Accident at							3		16		14	
Puerperal Eclampsia							8		35		13	
Puerperal Hemorrhage											1	
Puerperal Fever							10		31		20	
Puerperal Peritonitis							1		12		6	
Puerperal Phlebitis												
Puerperal Septicæmia									6			
Post Partum Hemorrhage							1		4		3	
Parturition									3			
Pelvic Abscess							1		1		1	
Pelvic Cellulitis									1			
Uterine Hemorrhage							2		2		5	
Total							28		112		63	
ORDER THREE—OLD AGE.												
Old Age												
ORDER FOUR—NUTRITION.												
Asthenia												
Debility	12	7	3	1			2	3	2	3	4	
Exhaustion	6			3			1			1	5	
Imperfect Nutrition	2	1						1				
Marasmus	9	14	7	2			1				1	2
Total	29	22	10	6			2	2	4	2	5	11
Grand Total Developmental Diseases	747	520	12	13	2		2	30	4	115	5	74

NO. III.

DEVELOPMENTAL DISEASES.

Grouped Ages and Sex, for the Year ending September 30, 1883.

AGES.																Male.	Female.	Grand Total.
40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 to 100.		100 and Over.		Not Re-ported.				
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	5	12
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	2
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	139	106	245
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	5	10
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	2	4
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	472	328	800
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	37	18	55
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	18	47
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	29	18	47
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	6	11
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	13	7	20
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	2
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	3	1
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3	6
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	5	7
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	1	6
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	4	7
.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2	3
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	723	508	1,231
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3
.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3
.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	37	37
.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	59	59
.	1	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	3	3
.	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	73	73
.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	21	21
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	6
.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10	10
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	4
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	12	12
.
.	20	.	1	.	1	.	1	.	.	.	.	.	.	.	10	.	236	236
.	.	3	4	2	8	40	41	67	73	14	16	.	2	1	3	127	147	274
.
6	7	7	3	11	11	2	3	14	12	2	1	.	.	.	2	2	4	6
2	2	2	1	1	.	19	15	1	1	.	.	.	.	.	80	67	147	
.	.	.	.	.	.	3	1	1	.	.	.	.	.	.	19	12	31	
.	1	.	.	.	.	.	3	.	.	2	.	.	.	.	2	1	3	
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	20	22	42	
8	10	9	4	12	12	24	22	15	12	4	1	.	.	1	2	123	106	229
8	30	12	9	14	21	64	64	82	85	18	17	.	2	3	17	973	997	1,970

TABLE

Showing total number of Deaths occurring in the State of Indiana,

CLASS FIVE—VIOLENCE.	GROUPED											
	Under 1		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—ACCIDENTS AND NEGLIGENCE.												
Abortion								1		2		5
Asphyxia	16	6		1					4		3	1
Accident	6	3	3	1	3	2	8	1	22	1	8	1
Amputation of leg												
Buzz saw												
Burns	1	1	8	5	1	3	1	5		3		3
Blow on abdomen											1	
Crushed by saw log												
Caving in of sand bank									1			
Caught in machinery									1			
Concussion of brain												
Drowned	3	2	8	2	11	1	16	1	10		8	
Drinking concentrated lye			1		1							
Explosion of gunpowder									1		3	
Explosion of boiler									1		2	
Exposure to cold	2								2		2	1
Foreign body in bronchia			1									
Foreign body in trachea		1	1									
Fall			1		1				2			
Falling tree					1				2			
Falling on sharp stick											1	
Falling slate in mine												
Fracture												
Fracture of femur									1		1	
Fracture of neck									3			
Fracture of ribs												
Fracture of spine											3	
Fracture of skull							1		5			
Fright												
Gun shot wound			3	1	1		9		8	2	1	1
Internal injury												
Injury from wrestling									1		1	
Kicked by a horse							2					
Lightning			1							2		
Laceration of brain with ax												
Mechanical occlusion, intestinal tube												1
Paracentesis									1			1
Pistol wound									1			
Runaway				3	2		1					
Rupture of blood vessel												
Rattlesnake bite						1						
Run over by R. R. cars			3			2	21	3	38		17	
Skull smashed												
Strangulation	4	1							2			1
Shock from operation							1					
Scalded			5	2			2		3		1	
Sunstroke									1			

TABLE III

CLASS FIVE—VIOLENCE.	GROUPED											
	Under 1		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—Continued.												
Suffocated in wheat elevator							1					
Spine, concussion of							2					
Thrown from a horse								1				
Toy pistol												
Poison	1		2	2					1		2	
Poison, by aconite												
Poison, by belladonna	1							1				1
Poison, by colored paper												
Poison, by landanum									1			
Poison, by morphine							1	1	2	1	3	
Poison, by opium										1		
Poison, by patent medicine										1		
Poison, by rat medicine										1		
Poison, by spirits of turpentine												
Poison, by white lead											1	
Total	33	14	37	17	21	9	66	14	113	14	57	16
ORDER TWO—JUDICIAL EXECUTION												
Total							1					
ORDER THREE—HOMICIDE.												
Homicide							2	3	4		6	
Infanticide		3										
Killed by a mob							1					
Pistol shot												
Shot while attempting to lynch a prisoner									1			
Stabbed in thigh											1	
Wound in head											1	
Total		3					3	3	5		8	
ORDER FOUR—SUICIDE.												
Suicide							3		11	3	2	3
Suicide by cutting throat									2		1	
Suicide by drowning											1	
Suicide by gun shot							1		1			
Suicide by hanging									2		4	1
Suicide by opium								1				
Suicide by pistol shot								1	2	1	1	1
Suicide by poison							2	4		2	2	4
Suicide by strangulation												
Total							6	6	19	7	11	9
ORDER FIVE—UNKNOWN												
Total	98	98	30	16	9	10	7	17	16	18	14	25
Grand total violence and accident	126	115	67	33	30	19	72	40	153	39	90	50

—Continued.

[illegible]

TABLE NO. III.

Deaths occurring in Indiana, arranged in grouped ages, and sex, for the year ending Sept. 30, 1883.

CLASS I.

ZYMOTIC DISEASES.

(Age under one)—This Table shows that nine hundred and eighty-seven deaths occurred during the first year of life. Three hundred and seventy-five of these were from *Cholera Infantum*; forty-five from *Croup*; twenty-three from *Diphtheria*; forty-six from *Cerebro Spinal Meningitis*; thirty-four from *Measles*; ninety-four from *Pertussis*; nine from *Small-pox*; nine from *Syphilis*, and one hundred from *Inanition*.

(One to five)—Eight hundred and ninety-four deaths occurred during the ages of from one to five. Of these, one hundred and thirty-two were from *Cholera Infantum*; one hundred and twenty-seven from *Croup*; one hundred and thirty-six from *Diphtheria*; seventy from *Cerebro Spinal Fever*; fifty-six from *Measles*; seventy-one from *Pertussis*; one from *Syphilis*, and eleven from *Inanition*.

The total deaths under five years of age from this class were 1,881, or 49 per cent. of the total. Of this class there were, males, nine hundred and ninety-two; females, eight hundred and eighty-nine.

The greatest mortality from *Croup* was under one, and one to five; *Cholera Infantum*, under one and one to five; *Diphtheria*, one to five; *Dysentery*, under one and one to five; *Cerebro Spinal Fever*, under one and one to five; *Malarial Fever*, five to ten; *Scarlet Fever*, one to five; *Typhoid Fever*, twenty to thirty; *Small-pox*, twenty to thirty.

Total deaths from this class were: Males, two thousand and twelve; females, one thousand eight hundred and twenty-three, making a total of three thousand eight hundred and thirty-five.

CONSTITUTIONAL DISEASES.

CLASS II.

Ages and Sex.

(Under one)—The deaths under one, from this class, were, sixty-nine males, and fifty females, a total of one hundred and nineteen; of which twenty-seven were from *Hydrocephalus*; twenty-eight from *Tubercular Meningitis*; twenty-eight from *Phthisis*; twenty from *Scrofula*, and ten from *Tabes Mesenterica*.

(One to five)—Deaths from one to five were: Males, fifty-five; females, fifty-five from this class of affliction. Of these, eleven died from *Hydrocephalus*; twenty-two from *Tubercular Meningitis*; thirty from *Consumption*; nineteen from *Scrofula*, and five from *Tabes Mesenterica*. Total under five from this class, were: Males, one hundred and twenty-four; females, one hundred and five, or 9.21 per cent. of total deaths from these maladies, which was one thousand and ninety-nine males, and one thousand four hundred and forty-one females.

Cancer was most fatal between sixty and seventy; *Cancer of Stomach*, from fifty to sixty, and sixty to seventy; *Dropsy*, the same from fifty to sixty, sixty to seventy and seventy to eighty. *Rheumatism* killed most between ten to twenty; *Phthisis Pulmonalis*, most from twenty to thirty. Two hundred and one males and three hundred and fifty-nine females. The total number dying from this cause within the year was seven hundred and twelve males, and one thousand and sixty-one females.

LOCAL DISEASES.

CLASS III.

Ages and Sex.

(Under one and one to five)—The number of deaths from this class, under one, were: Males, five hundred and eighty-three; females, three hundred and ninety-two. From one to five, males, two hundred and ninety-eight; females, three hundred and seventeen. Fifteen under one, died of *Brain Fever*, and seven, from one to five, from the same cause. *Congestion of the Brain*, seventy-eight under one, and forty-three from one to five. *Inflammation of Brain* killed twenty-eight, under one,

and seventeen, from one to five. *Convulsions* caused the death of one hundred and twenty-six, under one, and forty-five from one to five. *Meningitis* killed seventy-three under one, and eighty-seven from one to five. *Spasms* was the cause of seventeen deaths under one, and six, from one to five. *Apoplexy* was most fatal from sixty to eighty. *Paralysis* from seventy to eighty. *Disease of the Heart* the same. *Bronchitis* killed ninety-six under one, and fifty-two, from one to five. *Congestion of Lungs* was the cause of forty-five deaths under one. *Laryngitis* was most fatal between one and five. *Pneumonia* caused more deaths under one, and a total of six hundred and seventy-one males, and four hundred and eighty-nine females. *Inflammation of Bowels and Enteritis* were most fatal under one. *Peritonitis* from forty to fifty. *Cirrhosis of Liver* from sixty to seventy. *Bright's Disease* from forty to fifty. *Nephritis* from sixty to seventy. *Puerperal Eclampsia* was most fatal from twenty to thirty.

CLASS IV.

DEVELOPMENTAL DISEASES.

Order I.

Out of 1,970 deaths from these diseases there were 245 premature births reported within the year. Of these 139 were males and 106 were females. Of still births, 800 were reported—males, 472; females, 328. There were 47 deaths from infantile debility—29 males and 18 females, and 20 from malformation, 13 males and 7 females. Six from umbilical hemorrhage—5 males and 1 female, and 7 from disease of the umbilical cord, 3 of whom were males and 4 females.

Order II.

Two hundred and thirty-six deaths were reported from developmental diseases of women. Of these 59 were from puerperal eclampsia; 37 from accident at child birth [what kind of accident is not stated]; 73 from puerperal fever; 21 from puerperal phlebitis; 6 from puerperal septicemia; 10 from post partum hemorrhage; 12 from uterine hemorrhage.

Order III.

Old age killed 574, of ages ranging from 50 to 100 and over, of whom 127 were males and 147 females.

Order IV.

Diseases of nutrition killed 229. One hundred and forty-seven deaths were reported from debility (a very vague cause, which may be construed to mean almost anything), of whom 80 were males and 67 females.

CLASS V.

ACCIDENTS, NEGLIGENCE AND VIOLENCE.

Order I.

Of the 1,256 deaths from this cause, 814 were males and 442 females. Sixteen males and 6 females under one year of age died from asphyxia. Simple accident killed 79 males and 17 females. Burns killed 12 males and 23 females, a preponderance of females, accounted for by their domestic habits exposing them to fire. Sixty-nine males and 6 females were drowned. Thirty-five males and 5 females died from gunshot wounds. One hundred and fourteen males and 7 females were killed by the cars. Thirteen males and 3 females were scalded to death. Nineteen males and 16 females died from various poisons.

Order III.

Homicide.—Of the 22 deaths from homicide 19 were males and 3 females.

Order IV.

Suicide.—Of the 100 suicides 69 were males and 31 females. In the different manners of suicide the males preponderate in each excepting in "poison," in which there were 15 males and 12 females.

Exhibit of Number of Deaths Arranged by Sex and Ages, with Per Cents. thereof to Total Mortality in each Class or Order.

DISEASE.	Total Deaths.	Males.	Per Cent. of Males.	Females.	Per Cent. of Females.	Total Under 1 Year.	Per Cent. to Total Mor- tality.	Total Under 5 Years.	Per Cent. to Total Mor- tality.
ZYMOTIC.									
Miasmatic	3,550	1,841	51.8	1,709	48.2	823	23.2	1,699	48
Epidemic	19	9	47.3	10	52.7	5	47.3	10	52.7
Dietic	280	158	60.7	102	39.3	152	60.7	167	62.2
Parasitic	6	4	66.6	2	33.4	3	50.	5	83.3
Total	3,835	2,012	52.4	1,823	47.6	987	25.7	1,881	49.
CONSTITUTIONAL.									
Dietetic	513	245	47.7	268	52.3	5	1.	25	5.
Tubercular	2,027	854	42.1	1,173	57.9	114	5.8	204	10.4
Total	2,540	1,099	43.2	1,441	56.8	119	4.8	229	9.3
LOCAL.									
Nervous system	1,559	839	53.8	720	46.2	399	25.	628	41.4
Circulatory system	470	233	49.5	237	50.5	20	4.4	95	15.
Respiratory	1,974	1,093	55.3	881	44.7	374	20.5	641	32.7
Digestive	465	245	52.7	438	48.	177	20.5	287	30.9
Urinary	296	196	66.	100	35.	5	1.8	13	5.
Generative	50	2	4.	48	96.0	..	..	1	2.
Osteous and Locomotory	13	7	54.6	6	45.4	2	16.6	2	16.6
Integumentary	58	32	55.	26	45.	6	10.5	10	17.2
Miscellaneous	21	5	23.8	16	76.2	2	10.5	3	13.7
Total	5,324	2,862	53.7	2,462	46.3	975	18.	1,590	29.8

DEVELOPMENTAL.

Children	1,231	723	58.7	508	41.3	1,216	99.	1,225	99.6
Woman	236	127	46.4	236	100.0	236	22.5	236	22.5
Old age	274	123	53.7	147	53.6	51	22.5	67	30.
Nutrition	229	123	53.7	106	46.3	51	22.5	67	30.
Total	1,970	973	49.4	997	50.6	1,267	64.3	1,292	65.5
VIOLENCE.									
Accidents and negligence	606	480	79.2	126	20.8	47	8.2	101	16.6
Judicial execution	2	2	100.0	2	100.0	2	100.0	2	100.0
Homicide	32	26	81.1	6	18.9	3	9	3	3.1
Suicide	100	69	69.0	31	31.	191	40.	237	47.1
Unknown	516	237	45.9	279	54.1	191	40.	237	47.1
Total	1,256	814	64.8	442	35.2	241	21.	341	29.6
Grand Total	14,925	7,760	51.	7,165	49.	3,589	24.	5,333	35.7

Exhibit of Deaths, Arranged

DISEASE.	GROUPED											
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS ONE—ZYMOTIC.												
Miasmatic	455	368	437	439	163	161	167	194	210	171	102	105
Enthetic	5	4	1	1	..	..	..	..	1	2	1	2
Dietic	80	72	11	4	2	..	2	10	2	4	13	..
Parasitic	3	..	1	1	..	..	..	..	..	..	..	..
Total	543	444	449	445	165	161	169	204	213	177	116	107
CLASS TWO—CONSTITUTIONAL.												
Diathetic	4	1	11	9	7	9	23	19	19	19	29	26
Tubercular	65	49	44	46	16	20	78	158	210	359	161	234
Total	69	50	55	55	23	29	101	177	229	378	190	260
CLASS THREE—LOCAL.												
Nervous System	229	160	108	131	45	45	49	39	47	50	28	29
Circulatory	13	7	3	2	4	6	10	17	18	23	10	30
Respiratory	235	139	135	132	38	32	51	59	89	74	71	61
Digestive	100	77	44	46	16	13	18	14	46	51	30	45
Urinary	2	3	4	4	4	4	12	7	10	12	14	14
Generative .....	..	..	1	..	..	..	..	2	..	10	..	4
Osseous and Locomotory	1	1	..	..	1	..	1	3	..	..	1	1
Integumentary	2	4	3	1	3	2	3	2	2	3	3	2
Miscellaneous .....	..	2	1	..	..	1	..	1	..	2	1	..
Total	582	393	299	316	111	108	144	144	212	225	158	186
CLASS FOUR—DEVELOPMENTAL.												
Children	718	498	2	7	2	..	..	..	..	1	..	..
Women .....	..	..	..	..	..	..	..	28	..	112	..	63
Old age .....	..	..	..	..	..	..	..	..	..	..	..	..
Nutrition	29	22	10	6	..	..	2	2	4	2	5	11
Total	747	520	12	13	2	..	2	30	4	115	5	74
CLASS FIVE—VIOLENCE.												
Accidents and Negligence	33	14	37	17	21	9	66	14	113	14	57	16
Judicial Execution .....	..	..	..	..	..	..	1	..	..	..	..	..
Homicide .....	..	3	..	..	..	..	3	3	5	..	8	..
Suicide .....	..	..	..	..	..	..	6	6	19	7	11	9
Unknown	93	98	30	16	9	10	7	17	16	18	14	25
Total	126	115	67	33	30	19	72	40	153	39	90	50
Grand Total	2067	1522	882	862	331	312	488	595	811	934	559	667

According to Age and Sex.

AGES.																Male.	Female.	Grand Total.	
40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100		Not reported.					
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
62 17 1	63 3 .	62 9 .	47 1 .	52 11 .	53 4 1	57 3 .	32 .	18 3 .	20 1 .	4 1 .	3 .	.	.	1 .	52 4 .	52 3 .	1,841 9 158 4	1,709 10 102 2	3,550 19 260 6
80	66	71	48	64	58	60	32	21	21	5	3	.	.	1	56	56	2,012	1,823	3,835
18 101	40 120	35 64	48 76	39 59	46 41	37 25	37 28	8 7	6 4	3 .	1 .	.	.	.	12 33	7 38	245 854	268 1,173	513 2,027
119	160	99	124	98	87	62	65	15	10	3	1	.	.	.	45	45	1,099	1,041	2,540
43 30 99 43 26	35 29 60 47 11	70 39 104 41 30	53 33 60 39 13	86 54 112 67 31	64 35 96 45 11	77 43 84 31 35	81 35 96 28 10	25 4 38 8	16 7 23 6	4 3 1	2 5 1	.	.	.	28 5 34 17 6	15 12 44 14 6	839 233 1,093 465 186	720 237 881 428 100	1,559 470 1,974 893 286
.	14 7	.	7	.	3	.	5	.	.	.	.	.	2	.	1 1	1 1	2 7 32 5	48 6 26 16	50 13 51 28
248	205	289	211	353	257	273	257	87	58	8	9	2	.	.	94	95	2,862	2,462	5,324
.	20	.	1	.	1	.	1	.	.	.	.	.	.	.	1	2	723	508	1,231
8	10	3 9	4 4	2 12	8 12	40 24	41 22	67 15	73 12	14 4	16 1	.	2	.	1 1	3 2	127 123	236 147 106	236 274 229
8	30	12	9	14	21	64	64	82	85	18	17	.	2	2	17		973	997	1,970
45 6 9 9	6 3 22	36 1 9 9	11 4 3 16	18 8 9	3 1 15	12 4 9	8 1 17	12 1 7	5 1 8	1 4	1 3	.	.	.	29 2 21	8 1 14	480 2 26 69 237	126 6 31 279	606 2 32 100 516
69	31	58	30	35	19	25	26	20	13	5	4	.	.	.	52	53	814	442	1,256
524	492	529	422	564	442	484	444	225	187	39	34	2	3	249	266		7,760	7,165	14,925

TABLE NO. IV.

NATIONALITY, COLOR, ETC. CLASS ONE—ZYMOTIC DISEASES.

Total number of Deaths in the State of Indiana, arranged in classes, orders, sex, color, nationality, and social relation, for the year ending September 30, 1883.

CLASS ONE—ZYMOTIC DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widowers.	Widows.	Not Reported.	Whole Number.
	Males.	Females.	White.		Black.	American.		Foreign.		Not Repted								
			M.	F.		M.	F.	M.	F.									
ORDER ONE—MIASMATIC—																		
Carbuncle	4	2	4	2			3	1	1	1		3	2				6	
Choleraic diarrhoea	2	7	15	7			15	6				10	11				22	
Cholera morbus	15	247	271	242	7	5	259	241	14	1	519			1			520	
Cholera infantum	273	24	22	23	2	1	18	21	3	1	26	12	2	6	1		46	
Congestive chill	22	85	115	82	2	3	109	82	7	3	200	2					202	
Croup	117	159	148	158	2	1	140	149	10	10	302	5		1	1		309	
Diphtheria	150	43	43	40	2	3	39	37	4	6	61	14	4	5	2		86	
Diarrhoea	43	83	74	79	2	4	66	74	8	9	79	27	8	9	36		159	
Dysentery	76	10	10	11			10	12			21	1					22	
Enteric colitis	10	12	10	11			10	12			21	1					22	
Erysipelas	35	50	35	46			31	42	4	7	44	20	4	6	11		86	

Fever, cerebro spinal	112	106	111	102	1	4	107	104	5	2				163	29	2	5	21	218
Fever, catarrhal	22	11	22	11	2	1	22	21	1					24	4		2	2	33
Fever, continued	42	31	40	30	1	1	46	27	1	4				17	8		19	73	16
Fever, congestive	8	8	7	8	2	2	14	8	2					13	4		6	16	27
Fever, intermittent	14	13	12	13	2	3	73	12	7	1				59	61		17	27	150
Fever, malarial	79	71	75	68	4	8	8	64	7					10	4		1	17	150
Fever, pernicious	8	7	7	7	1	1	22	7	3	2				28	16			15	49
Fever, remittent	26	2	25	23	1			20						1	1		5	49	2
Fever, relapsing																			
Fever, typhoid	320	294	311	282	9	12	291	265	33	25	6	4		300	207	10	68	614	2
Fever, typho-malarial	48	63	46	61	2	2	40	50	8	12		1		53	45	7	5	111	114
Fever, scarlet	63	51	59	48	4	1	52	41	11	10				111	7		1	114	114
Gangrene	16	17	16	16	1	1	12	15	4	2				17	17	5	4	33	33
Measles	88	52	87	52	1		82	46	6	6				100	23	1	16	140	4
Mumps	2	2	2	2			2	2						1				4	4
Peritonitis	83	100	78	95	5	5	85	95	9	4		1		179	1		2	183	2
Pyæmia	33	22	33	22	5	5	28	19	9	3				19	24	4	8	55	55
Small-pox	121	92	91	71	30	21	111	89	5	3	1			110	64	3	13	23	213
Septæmia	9	31	9	31			7	24	1	7	1			10	24		5	5	40
Urticaria		1		1				1						1				1	1
Total	1,841	1,709	1,770	1,635	71	74	1,682	1,567	146	134	13	8		2,478	662	60	106	244	3,550
ORDER TWO—ENTERIC—																			
Syphilis	9	10	8	9	1	1	8	10	1					15	3		1		19
Total	9	10	8	9	1	1	8	10	1					15	3		1		19
ORDER THREE—DIETIC—																			
Delirium tremens	18		17		1		12		5		1			4	12	1		1	18
Inanition	100	98	94	85	6	8	94	80	6	3		1		170	12	2	7	2	193
Intemperance	31		31				23		7		1			11	14	5	1	1	31
Purpura	9	9	9	9			9	9						11	6			1	18
Total	158	102	151	94	7	8	138	98	18	3	2	1		196	44	8	8	4	280
ORDER FOUR—PARASITIC—																			
Aphthæ	2		2				2							2					2
Elephantiasis	2	1	2	1			2	1									1		1
Thrush																			3
Total	4	2	4	2			4	2						5			1		6
Grand total symptomatic diseases	2,012	1,823	1,933	1,740	79	83	1,832	1,677	165	137	15	9		2,694	709	68	116	248	3,885

TABLE No. IV.—Continued.

NATIONALITY, COLOR, ETC. CLASS TWO.—CONSTITUTIONAL DISEASES.

Total number of deaths in the State of Indiana arranged in classes, orders, sex, color, nationality and social relation, for the year ending September 30, 1883.

CLASS TWO.—CONSTITUTIONAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widowers.	Widows.	Not reported.	Whole number.
	Males.	Females.	White.		Black.	American.		Foreign.		Not Rep'd.								
			M.	F.		M.	F.	M.	F.									
ORDER ONE.—DIATHETIC.	30	27	29	27	1	1	20	23	9	4	1	2	12	30	1	10	4	57
Anasarca	15	24	14	24	1	1	15	21	2	1	2	2	12	25	1	1	39	45
Anæmia	27	18	27	17	1	1	25	14	2	4	1	2	14	10	1	7	21	66
Ascites	30	36	30	36	1	1	26	35	2	1	2	2	14	23	3	20	1	11
Cancer	1	11	1	11	1	1	1	8	2	2	1	1	3	6	1	1	1	1
Cancer of abdomen	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cancer of breast	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Cancer of bladder	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Cancer of bowels	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Cancer of duodenum	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Cancer of eye	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Cancer of foot	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Cancer of face	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Cancer of kidney	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2

TABLE No. IV—Continued.

NATIONALITY, COLOR, ETC. CLASS THREE—LOCAL DISEASES.

Total number of Deaths in the State of Indiana, arranged in Classes, Orders, Sex, Color, Nationality and Social Relation, for the year ending September 30, A. D. 1883.

CLASS THREE—LOCAL DISEASES.	TOTAL.		COLOR.						NATIONALITY.						Single.	Married.	Widowers.	Widows.	Not Reported.	Whole Number.
	Male.	Female.	White.			Colored.			American.		Foreign.		Not Rep'ted							
			M.	F.	M.	F.	M.	F.	M.	F.										
ORDER ONE—NERVOUS SYSTEM.																				
Apoplexy.	97	74	93	73	4	1	82	57	15	16	1	16	92	18	36	9	171			
Arachnitis.	4	1	3	1	1	1	4	1	1	1	1	1	2	1	1	1	5			
Abscess of brain.	18	15	17	14	1	1	18	15	2	2	2	32	1	1	1	1	33			
Abscess of spine.	2	2	2	2	2	2	2	4	4	4	4	6	1	1	1	1	2			
Brain fever.	115	76	111	76	4	4	106	71	9	5	5	138	43	7	7	3	191			
Brain, compression of.	9	8	8	8	1	1	9	8	1	1	1	1	1	1	1	1	17			
Brain, disease of.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
Brain, effusion of.	14	9	13	9	1	1	11	8	3	1	1	8	12	1	3	1	23			
Brain, hemorrhage of.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Brain, hyperemia of.	56	39	53	38	3	1	50	36	6	3	1	69	21	1	2	2	95			
Brain, inflammation of.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
Brain, paralysis of.	30	15	29	14	1	1	27	15	3	3	1	7	25	6	4	3	45			
Brain, softening of.	11	13	11	13	1	1	9	12	2	1	1	17	6	1	1	1	24			
Cerebritis.	1	3	1	3	2	3	3	2	9	6	2	3	180	18	1	2	206			
Chorea.	104	102	102	99	1	1	93	93	1	1	1	41	16	2	5	1	64			
Convulsions.	32	32	32	31	1	1	31	26	1	1	1	1	41	16	2	5	1			
Epilepsy.	3	4	3	4	1	1	2	2	1	1	1	1	4	1	1	1	7			
Hemiplegia.	2	2	2	2	1	1	2	2	1	1	1	1	4	1	1	1	5			
Insanity.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
Inflammation.	9	2	5	1	1	1	6	1	1	1	1	1	4	1	1	1	5			
Locomotor ataxia.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3			
Muscular Atrophy.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3			

Meningitis	115	130	108	126	7	4	110	120	5	10	1	209	21	3	3	9	245
Myelitis	3	3	3	3	1	1	2	3	1	1	1	3	2	1	1	1	6
Neuralgia	2	2	2	2	1	1	1	2	1	3	1	1	1	1	1	1	4
Nervous exhaustion	4	11	4	11	1	1	3	8	1	1	1	6	7	2	2	15	1
Neuroma	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Paralysis	133	138	129	131	4	7	114	122	17	16	2	38	136	24	67	6	271
Spine, disease of	15	8	15	13	1	1	14	8	1	1	1	19	3	1	1	1	23
Spine, Congestion of	1	2	1	2	1	1	2	2	1	1	1	2	1	1	1	1	3
Spine, Stenosis of spinal chord	2	1	2	1	1	1	1	1	1	2	1	1	4	1	1	1	2
Spasms	19	17	17	17	2	1	18	15	1	1	1	35	1	1	1	1	36
Thrombosis cerebral	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tetanus	17	17	16	17	1	1	15	6	2	1	1	17	6	1	1	1	24
Trismus nascentium	10	1	10	6	1	1	10	1	1	1	1	10	1	1	1	1	11
Tumor of brain	3	3	3	3	1	1	3	1	1	1	1	2	1	1	1	1	3
Total	840	719	807	699	32	21	755	641	77	73	7	872	451	60	135	41	1,559
ORDER TWO—CIRCULATORY.																	
Aneurism	3	4	3	4	1	1	3	4	1	1	1	1	3	1	1	1	7
Angina Pectoris	5	1	5	1	1	1	5	1	1	1	1	1	4	1	1	1	6
Arteries, ossification of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Arteries, inflammation of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Blood vessel, rupture of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Congestion	23	20	20	20	2	2	17	18	5	2	2	24	15	2	1	1	42
Endocarditis	2	3	2	3	3	3	2	3	2	3	3	3	7	2	1	1	5
Emboli	2	3	2	3	2	2	2	3	2	3	3	3	7	2	1	1	10
Hemorrhage	2	3	2	3	2	2	2	3	2	3	3	3	7	2	1	1	6
Hydro-pericardium	11	17	11	17	1	1	8	13	3	4	4	16	16	1	4	1	28
Heart, abscess of	1	3	1	3	1	1	1	3	1	1	1	1	5	1	1	1	7
Heart, clot	4	3	4	3	1	1	3	3	1	1	1	1	5	1	1	1	7
Heart, congestion of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Heart, disease of	91	90	88	86	2	4	72	64	19	16	10	26	118	14	17	6	181
Heart, dilatation of	1	4	1	4	1	1	4	3	2	1	1	2	4	1	3	1	5
Heart, fatty of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Heart, hypertrophy of	4	3	4	3	1	1	4	3	2	1	1	1	3	1	1	1	5
Heart, neuralgia of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Heart, paralysis of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Heart, valvular disease of	20	11	19	11	1	2	19	9	1	2	1	6	21	11	2	1	31
Pericarditis	43	39	39	37	4	1	35	29	7	9	1	13	43	12	14	3	82
Phlebitis	8	16	8	16	1	1	6	12	1	4	1	4	12	3	1	1	24
Syncope	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	233	237	224	229	9	8	190	185	41	40	2	98	272	33	50	12	470

TABLE No. IV—Continued.

CLASS THREE—LOCAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.				Single.	Married.	Widowers.	Widows.	Not Reported.	Whole Number.	
	Male.	Female.	White.		Colored	American.		Foreign.		Not Rep'ted							
			M.	F.		M.	F.	M.	F.								
ORDER THREE—RESPIRATORY.																	
Asthma.....	12	22	12	22			9	15	3	7		9	16	1	6	2	34
Apnea.....	2		1		1		2				2						2
Angina trachealis.....	1																1
Bronchitis.....	136	145	126	134	10	11	116	135	20	10	177	39	12	26	28	287	7
Catarrh, bronchial.....	3	4	3	4			3	4			2	1					7
Catarrh, capillary.....																	
Catarrh, senile.....																	
Empyema.....	3	1	3	1													3
Emphysema.....	3	3	3	3			1	3	2		1	4					6
Hydrothorax.....	2	1	2	1			1	3			1	3					9
Hemoptysis.....	3	3	3	3			2	3			3	7	1				6
Lungs, abscess of.....	66	51	63	49	2	1	65	44	1	7	73	25	7		5	117	9
Lungs, disease of.....	9	12	8	11	1	1	9	9		3	14	6		1		21	6
Lungs, hepatization of.....	3	3	2	3	1		3	2	1	3	2	2	2			2	2
Lungs, hemorrhage of.....	11	10	9	10	2		10	7		2	6	11	2				21
Lungs, edema of.....	2			2													2
Lungs, ulceration of.....																	
Laryngitis.....	38	26	36	26			35	24	3	2	51	11					64
Larynx, tumor of.....	1		1								3					2	1
Edema of glottis.....		3		3				3									3
Pneumonitis.....	671	489	637	471	34	18	592	434	73	46	531	443	64	91	31	1,160	3
Pneumonitis-typhoid.....	75	69	73	67	2	2	62	60	13	9	38	83	10	9	4	144	1
Pneumonitis-pneuro.....	28	21	28	21			23	15	5	4	10	25	3	10	1	49	1
Pleurisy.....	13	6	13	6			9	6	1		5	8	5			19	1
Trachea, tumor of.....																	
Throat, ulceration of.....	1	1	1	1			1				1						1
Total.....	1,093	881	1,039	844	54	37	958	776	126	94	942	689	107	161	75	1,974	1

TABLE NO. IV—Continued.

CLASS THREE—LOCAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widowers.	Widows.	Not Reported.	Whole Number.
	Male.	Female.	White.		Colored	American.		Foreign.		Not Rept'd								
			M.	F.		M.	F.	M.	F.	M.	F.							
Stomach, hemorrhage of	6	1	6	1	1	5	1	1	1	1	1	4	3	3	2	1	7	
Stomach, neuralgia of	2	1	2	1	1	14	7	3	1	1	1	1	15	3	1	1	24	
Stomach, ulceration of	17	7	17	7	2	2	2	2	2	2	2	4	2	2	1	1	4	
Stomach, tumor of	2	2	2	2	2	3	2	2	3	2	2	1	2	2	1	1	5	
Spleen, disease of	3	2	3	2	5	5	5	5	5	5	2	2	1	1	1	1	9	
Stomatitis	4	5	4	5	5	4	5	5	5	5	2	2	1	1	1	1	9	
Tonsillitis	7	9	7	9	7	7	7	7	5	5	2	2	11	1	1	1	12	
Total	465	428	451	412	14	16	400	382	61	42	4	4	408	350	35	60	893	
ORDER FIVE—UNINARY SYSTEM.																		
Albuminuria	7	7	7	7	7	6	7	1	1	1	1	2	1	6	3	1	14	
Bladder, disease of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
Bladder, hemorrhage of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
Bladder, rupture of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
Bladder, tumor of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
Calculus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
Cystitis	8	1	3	1	1	3	1	5	5	1	1	1	2	16	5	1	26	
Diabetes	25	15	25	14	1	23	15	1	15	1	1	1	5	25	4	2	39	
Kidneys, abscess of	2	4	2	4	4	1	3	1	3	1	1	1	1	2	1	3	8	
Kidneys, disease of	2	4	2	4	4	1	3	1	3	1	1	1	1	2	1	1	8	
Kidneys, fatty	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Kidneys, ulceration of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Nephritis (Bright's Disease)	64	33	63	30	1	47	29	16	29	16	3	1	18	58	8	7	97	
Nephritis	29	16	29	16	3	27	14	2	27	14	2	2	14	25	3	3	45	
Prostitis	4	4	4	4	4	4	3	1	4	3	1	1	2	5	1	1	8	
Urine, suppression of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Urethra, structure of	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Uremia poisoning	17	15	17	15	15	11	9	5	11	9	5	6	8	18	2	2	32	
Total	186	100	185	96	1	4	151	84	32	15	3	1	62	168	27	18	286	

[illegible]

TABLE No. IV—Continued.

NATIONALITY, COLOR, ETC., CLASS FOUR—DEVELOPMENTAL DISEASES.

Total number of deaths in the State of Indiana arranged in Classes, Orders, Sex, Color, Nationality, and Social Relation for the year ending September 30, 1883.

CLASS FOUR—DEVELOPMENTAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widowers.	Widows.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Rep'ted							
			M.	F.	M.	F.	M.	F.	M.	F.								
ORDER ONE—CHILDREN.																		
Atelectasis.	7	5	6	5	1		6	5	1			12					12	
Anus, imperfect.	2		2				2					2					2	
Birth, premature.	139	106	139	102		4	136	104	3	1		245					245	
Birth, injuries.	5	5	5	5			4	5	1			10					10	
Birth, still.	472	328	451	320	21	8	458	315	6	9	4	800					800	
Cyanosis.	37	18	36	18	1		37	18				55					55	
Debility, infantile.	29	16	29	17		1	29	18				47					47	
Malnutrition.	5	5	5	6			5	5				11					11	
Malformation.	13	2	12	7	1		13	7	1			20					20	
Nursing sore mouth.																		
Prolapsus funis.	1		1	2			1	2				2					2	
Scars, bled.	3	3	3	3			3	3				6					6	
Spina bifida.	2	5	2	5			2	5				7					7	
Teething.	5	1	4	1		1	5	1				6					6	
Umbilical hemorrhage.	3	4	3	4			3	4				7					7	
Umbilical cord, disease of.																		
Total.	723	508	698	495	25	13	704	492	11	11	8	1,231					1,231	

TABLE No. IV—Continued.

NATIONALITY, COLOR, ETC. CLASS FIVE—VIOLENCE, ACCIDENTS AND NEGLIGENCE.

Total number of Deaths in the State of Indiana, arranged in Classes, Orders, Sex, Color, Nationality and Social Relation, for the Year ending Sept. 30, 1883.

CLASS FIVE—VIOLENCE.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widowers.	Widows.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.	American.		Foreign.		Not Rep'ted								
			M.	F.	M.	F.	M.	F.	M.	F.								
ORDER ONE—ACCIDENTS AND NEGLIGENCE.																		
Abortion	9	9	9	2	2	2	27	7	12	12	2	2	2	2	2	2	2	9
Asphyxia	12	12	12	17	17	17	65	14	14	14	3	3	30	43	1	1	1	12
Accident	79	79	79	3	3	3	2	2	2	2	2	2	43	43	1	1	1	79
Amputation of leg	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
Burns	23	23	22	22	22	22	11	21	1	1	2	2	24	24	1	2	2	23
Blow on Abdomen	1	1	1	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1
Crushed by saw log	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
Caving in of sand bank	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Caught in machinery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Concussion of brain	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Drowned	69	69	64	5	5	5	58	5	9	9	2	2	54	16	2	2	3	69
Drinking concentrated lye	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Explosion of gun powder	1	1	1	1	1	1	2	2	2	2	2	2	3	3	2	2	2	1
Explosion of boiler	6	6	6	6	6	6	3	3	3	3	3	3	3	3	3	3	3	6
Exposure to cold	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Foreign body in trachea	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1
Foreign body in bronchia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fall	11	11	10	3	3	3	9	2	2	2	1	1	1	1	1	1	1	11
Falling tree	4	4	4	2	2	2	4	2	2	2	1	1	4	4	2	2	2	4
Falling on sharp stick	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

[illegible]

TABLE No. IV—CLASS FIVE—Continued.

CLASS FIVE—VIOLENCE.	TOTAL.		COLOR.				NATIONALITY.								Single.	Married.	Widowers.	Widows.	Not Reported.	Whole Number.						
			White.		Black.		American.		Foreign.		Not Rep'ted															
	Male.	Female.											M.	F.							M.	F.	M.	F.	M.	F.
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.														
ORDER THREE—HOMICIDE.																										
Homicide.	19	3	17	3	2	..	15	3	3	..	1	..	9	10	3	..	..	23						
Infanticide.	..	3	..	3	..	..	2	2	..	..	..	..	3	..	..	..	..	3
Killed by mob.	2	..	2	..	..	..	2	..	1	..	..	..	1	..	1	..	..	2
Pistol shot.	1	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1
Shot while attempt'g to lynch prisoner.	1	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1
Stabbed in thigh.	1	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1
Wound in head.	2	..	2	..	..	..	2	..	..	..	..	..	1	..	..	..	..	2
Total.	26	6	24	6	2	..	20	5	5	1	1	..	14	13	5	..	..	32						
ORDER FOUR—SUICIDE.																										
Suicide.	28	8	27	8	1	..	20	7	8	1	..	..	11	18	5	2	..	36						
Suicide by cutting throat.	..	..	7	..	1	..	4	..	3	..	..	..	4	2	..	..	..	8
Suicide by drowning.	2	1	2	1	..	..	1	1	1	..	..	..	2	1	..	..	..	3
Suicide by gas shot.	5	..	5	..	..	..	5	..	..	..	..	..	2	..	..	..	..	8
Suicide by hanging.	14	4	14	4	..	..	12	4	2	..	..	..	7	10	1	..	1	18			
Suicide by opium.	2	..	1	1	..	1	..	2	..	..	..	..	1	2	..	..	..	3	
Suicide by pistol shot.	6	3	6	3	..	..	4	2	..	..	..	..	6	3	..	..	..	9
Suicide by poison.	5	12	5	12	..	..	4	8	..	..	..	..	9	7	..	..	1	17
Suicide by strangulation.	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Total.	69	31	67	30	2	1	53	25	14	3	2	3	43	46	7	2	2	100								
Unknown.	237	279	225	260	12	19	212	251	19	26	6	2	302	98	16	34	66	516								
Grand Total—Violence, Accidents and Unknown.																										
	577	163	551	153	28	10	478	137	93	18	6	8	373	285	33	18	31	740								
	237	279	225	260	12	19	212	251	19	26	6	2	302	98	16	34	66	516								
	814	442	776	413	38	29	690	388	112	44	12	10	675	383	49	52	97	1,256								

NATIONALITY.

In regard to the nationality of decedents, twelve thousand eight hundred and ninety-two were Americans, and one thousand four hundred and fifty-seven were foreign. According to the census of 1880, the proportion of foreign inhabitants to the total population was about 7.5 per cent. The mortality of foreign is about 10 per cent., showing an excess of mortality among the foreign over the natives.

COLOR.

Of the total number of deaths, six hundred and twenty-three were colored. The census of 1880 shows that the colored population was 2.3 per cent. The mortality here given is 4.3, thus showing an undue proportion of deaths among the colored race. This is easily explained when we consider that the negro is an exotic in Indiana, and poorly adapted to resist the variations of our climate, and that, as a class, they are surrounded with unhygienic influences.

SOCIAL RELATIONS.

The decedents sustained the following social relations:

	Single.	Married.	Widower.	Wid'w.	Not reported.
Zymotic Diseases	2,694	709	68	116	248
Constitutional	993	1,176	85	195	91
Local	2,441	1,991	270	440	182
Developmental	1,369	360	90	133	18
Accident, Negligence and Violence	675	383	49	52	97
Total	8,162	4,619	572	936	636

TABLE No. V.

CAUSES OF DEATHS BY COUNTIES.

Showing the Causes of Deaths occurring in the State of Indiana, arranged by Classes and Counties, for the Year ending September 30, 1888.

COUNTIES.	Zymotic.	Constitutional.	Local.	Developmental.	Violence and Unclassified.	Grand Total from all Causes.
Adams	21	10	37	12	9	89
Allen	84	35	104	35	25	283
Bartholomew	63	36	80	33	15	227
Benton	24	2	36	9	8	79
Blackford	19	9	11	4	1	44
Boone	30	18	38	21	10	117
Brown	13	8	22	11	1	55
Carroll	40	21	59	30	21	171
Cass	15	21	23	7	6	72
Clark	79	48	96	36	17	276
Clay	24	18	54	17	29	142
Clinton	23	15	22	11	6	87
Crawford	11	6	22	6	3	48
Daviess	64	30	76	20	10	200
Dearborn	43	33	84	16	35	211
Decatur	34	35	59	20	6	154
DeKalb	21	9	25	15	17	87
Delaware	36	38	67	22	22	185
Dubois	44	14	39	18	6	121
Elkhart	27	22	63	15	29	156
Fayette	15	21	37	13	3	89
Floyd	63	46	98	23	21	251
Fountain	14	17	28	17	20	96
Franklin	29	17	42	8	9	105
Fulton	15	9	16	8	3	51
Gibson	64	27	77	25	18	211
Grant	27	14	30	11	9	91
Greene	54	19	71	35	12	191
Hamilton	65	29	73	30	15	212
Hancock	19	22	42	14	9	106
Harrison	44	33	82	24	14	197
Hendricks	41	40	82	33	15	211
Henry	56	41	61	23	25	206
Howard	33	26	47	21	9	136
Huntington	49	28	67	24	9	177
Jackson	54	22	60	22	25	183
Jasper	11	5	24	16	2	58
Jay	35	11	32	3	6	90
Jefferson	24	25	54	11	12	126
Jennings	25	29	43	16	12	125

TABLE No. V—Continued.

COUNTIES.	Zymotic.	Constitutional.	Local.	Developmental.	Violence and Unclassified.	Grand Total from all Causes.
Johnson	48	47	82	37	7	221
Knox	24	18	59	16	25	142
Kosciusko	20	21	46	21	5	113
Lagrange	11	9	30	4	3	57
Lake	44	5	25	7	16	97
Laporte	88	62	82	35	32	299
Lawrence	35	30	48	18	8	139
Madison	52	18	47	16	5	138
Marion	472	305	583	269	110	1,739
Marshall	17	20	22	13	8	80
Martin	31	22	45	6	5	109
Miami	25	31	61	15	18	151
Monroe	30	43	43	21	15	152
Montgomery	28	46	70	15	25	184
Morgan	23	22	39	25	8	117
Newton	14	10	21	11	2	58
Noble	21	15	39	11	8	94
Ohio	12	15	20	5	10	62
Orange	29	29	34	11	8	111
Owen	24	22	44	21	7	118
Parke	22	19	35	18	10	104
Perry	25	10	19	5	5	64
Pike	25	10	19	5	5	64
Porter	106	40	91	26	27	290
Posey	106	40	91	26	27	290
Pulaski	11	5	14	3	2	35
Putnam	39	29	74	23	19	184
Randolph	61	41	88	19	22	231
Ripley	47	25	47	8	15	142
Rush	45	30	60	21	6	162
Scott	1	1	7	2	2	11
Shelby	39	15	69	22	19	165
Spencer	45	23	84	21	16	189
Starke	10	6	11	9	3	39
Steuben	23	13	28	6	3	73
St. Joseph	43	29	46	18	18	154
Sullivan	29	27	45	15	14	130
Switzerland	14	15	27	8	4	68
Tiptecanoe	50	36	111	35	17	249
Tipton	25	17	28	23	14	107
Union	9	8	12	7	3	39
Vanderburgh	252	94	221	84	52	703
Vermillion	9	6	10	9	3	37
Vigo	127	111	177	86	38	539
Wabash	24	24	40	24	6	117
Warren	21	13	37	15	3	89
Warrick	44	26	54	14	15	153
Washington	35	24	58	19	20	156
Wayne	118	114	200	88	30	548
Wells	18	7	14	3	3	42
White	17	15	23	6	9	70
Whitley	27	18	71	19	13	148
Total	3,835	2,540	5,324	1,970	1,256	14,925

TABLE No. VI.

DISEASES BY COUNTIES.

Total number of diseases dangerous to public health, reported in the State of Indiana, arranged by counties for the year ending September 30, 1883.

COUNTIES.	Small-pox.	Scarlet Fever.	Typhoid Fever.	Measles.	Whooping Cough	Diphtheria.	Cerebro-Spinal Meningitis.
Adams		1	2			16	2
Allen		14	5	21		7	1
Bartholomew	6	6	9		1	11	
Benton		21		17		1	
Blackford	8					1	
Boone		5	1			13	
Brown			5			7	1
Carroll		7	23	1	4	6	
Cass							
Clark	101		5	3			
Clay							
Clinton		3				10	2
Crawford			2				
Daviess							
Dearborn	1	4	4	1		16	
Decatur	13	3	11			1	
Dekalb		3		36	1	3	
Delaware	15	6	4	5		18	
Dubois		4	31				4
Elkhart	1	9	9	13		31	
Fayette			4		7	2	
Floyd	12	5	7		10	4	
Fountain		3	15	11	7	6	
Franklin		29	7	6		1	1
Fulton	7	6	1	16			
Gibson							
Grant	2		10	2		1	
Greene		1	10		8	2	
Hamilton	18	84	21	8	2	18	
Hancock		2	8			10	1
Harrison							
Hendricks	20	26	55		3	16	
Henry		1	8	21	1	17	
Howard		2	4				
Huntington							
Jackson	6	1	15		7	4	3
Jasper							
Jay		6	9	43		2	
Jefferson	1	5	3	56	11	7	3
Jennings	4	1	21	122	4	5	

TABLE No. VI—Continued.

COUNTIES.	Small-pox.	Scarlet Fever.	Typhoid Fever.	Measles.	Whooping Cough.	Diphtheria.	Cerebro-Spinal Meningitis.
Johnson	7	26	33	20	4	24	1
Knox	2	23	22	1	2	22	1
Kosciusko	7	23	4	11	2	1	1
Lagrange	7	23	4	11	2	1	1
Lake	7	23	4	11	2	1	1
Laporte	20	26	1	1	4	4	1
Lawrence	20	4	6	1	28	1	1
Madison	40	158	89	185	12	42	3
Marion	1	2	1	1	5	5	1
Marshall	1	2	1	1	5	5	1
Martin			4		8	9	5
Miami			15		5	5	1
Monroe		17	5	23	4	17	1
Montgomery			5				
Morgan							
Newton		8		10		7	
Noble		1		16		6	
Ohio	3					6	
Orange			18			14	
Owen							
Parke			3			3	7
Perry			11			1	1
Pike			3				1
Porter						2	1
Posey	20		7				
Pulaski		3		4		4	
Putnam		13	47	17		27	1
Randolph		33	15	159	1	33	1
Ripley	1	33	10			25	
Rush	2	10	60	343	6	19	7
Scott							
Shelby		6	5	2		2	1
Spencer	3						
Starke		7					
Steuben		76	2	16		4	
St. Joseph		3	1			9	
Sullivan			4			1	
Switzerland						7	
Tippecanoe		19	1	48		7	2
Tipton							
Union							
Vanderburgh	286	25	7		1	20	2
Vermillion							
Vigo	4	9	23	81		16	1
Wabash							
Warren	24			23			
Warrick		2	9		105	29	
Washington	1						
Wayne		6	39	1		28	3
Wells							
White		2	2	22			
Whitley		5	8	7	2	14	2
Total.	644	817	746	1,376	211	727	59

TABLE No. VII.

BIRTHS.

The number of Births in the State of Indiana, arranged by Counties, Months, Sex, Color, and Nationality, grouped Ages of Parents, and number of Child of Mother, for the Year ending September 30, 1883.

COUNTIES.	1883.												1882.						TOTALS.		Whole Number.						
	Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.			Nov.		Dec.		Males.	Females.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.				
Adams	16	13	16	13	14	15	21	16	7	10	16	24	12	31	11	10	8	5	17	16	15	19	23	20	175	162	
Allen	34	29	33	28	42	25	23	26	32	26	24	26	37	36	37	35	24	28	27	33	33	21	33	23	375	350	
Bartholomew	24	22	11	12	12	10	7	10	4	47	24	24	24	24	22	21	30	26	22	27	21	20	26	8	339	300	
Benton	6	14	10	11	12	9	10	10	13	12	12	11	13	11	15	15	15	15	16	16	13	15	6	6	4	150	139
Blackford	3	7	12	9	9	9	6	11	8	16	5	17	5	17	20	10	7	8	15	11	15	6	6	4	121	107	
Boone	33	13	18	12	15	15	23	25	22	16	10	20	29	8	22	26	35	26	25	27	13	25	18	18	249	249	
Brown	13	6	12	4	15	11	16	7	9	10	5	8	11	10	10	3	1	3	13	13	9	5	4	4	117	90	
Carroll	25	25	18	29	25	17	19	22	23	19	23	19	23	24	17	30	33	14	16	21	20	13	30	22	270	258	
Cass	19	18	19	15	25	22	12	16	14	10	16	10	20	19	18	22	19	25	24	23	18	20	40	21	92	90	
Clark	19	18	19	15	25	22	12	16	14	10	16	10	20	19	18	22	19	25	24	23	18	20	40	21	258	218	
Clay	18	16	30	19	21	12	36	34	38	25	47	43	11	16	29	44	27	31	4	6	20	10	11	8	290	264	
Clinton	16	12	8	4	5	4	5	9	10	8	8	9	23	16	9	12	7	8	3	15	14	8	7	8	10	121	108
Crawford	9	8	7	10	7	10	14	10	9	8	14	4	7	10	4	7	8	7	7	9	8	9	7	6	101	106	
Davies	27	24	24	24	7	3	34	44	25	11	25	24	17	13	32	25	51	52	23	23	24	30	22	20	316	292	
Dearborn	20	13	25	18	27	21	14	16	22	23	25	13	19	14	26	13	19	24	18	20	18	17	12	6	235	203	

Decatur	15	20	16	12	9	6	29	11	17	13	18	14	19	31	16	8	5	31	12	4	23	40	31	16	12	16	9	13	15	220	199	419
Dekalb	10	6	18	9	10	15	6	15	26	2	31	26	27	30	21	6	25	41	32	4	20	39	30	33	21	2	4	22	79	65	144	
Delaware	29	18	20	23	23	15	22	15	26	21	16	13	16	20	23	15	25	16	32	32	20	39	30	38	14	5	24	22	325	287	612	
Dubois	29	18	20	23	23	15	22	15	26	21	16	13	16	20	23	15	25	16	32	32	20	39	30	38	14	5	24	22	247	222	469	
Elkhart	25	20	27	31	26	18	22	31	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	27	243	236	479	
Fayette	7	12	8	7	6	10	7	3	8	11	34	9	14	14	23	5	5	32	7	8	16	12	11	11	11	11	11	7	112	124	236	
Floyd	27	19	8	13	15	26	9	9	16	23	34	4	4	24	31	9	24	6	10	26	31	10	14	14	14	14	14	10	288	279	567	
Fountain	11	12	9	10	11	22	4	17	13	7	4	7	6	13	8	4	10	10	10	10	10	10	10	10	10	10	10	10	120	127	246	
Franklin	11	12	9	10	11	22	4	17	13	7	4	7	6	13	8	4	10	10	10	10	10	10	10	10	10	10	10	10	121	119	246	
Fulton	8	7	14	6	3	22	4	5	8	11	34	9	14	14	23	5	5	32	7	8	16	12	11	11	11	11	11	2	127	79	200	
Gibson	14	20	14	21	17	14	24	18	26	21	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	23	256	241	497	
Grant	16	17	16	24	25	19	18	14	16	13	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	21	201	183	384	
Greene	22	27	24	19	25	32	14	16	23	19	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	21	291	294	575	
Hamilton	33	23	36	21	25	22	32	24	26	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	376	315	691		
Hancock	14	20	14	21	17	14	24	18	26	21	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	224	185	224	409		
Harrison	15	22	13	13	25	21	25	19	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	236	236	445	
Hendricks	21	21	23	26	17	10	20	13	15	19	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	300	257	557	
Henry	30	24	26	26	17	10	20	13	15	19	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	356	294	557	
Howard	25	24	26	26	17	10	20	13	15	19	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	236	236	552	
Huntington	24	24	22	15	15	14	24	18	26	21	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	20	306	259	565		
Jackson	19	23	20	20	14	11	30	32	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	236	236	521		
Jasper	8	9	17	13	9	9	12	7	21	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	109	101	210	
Jay	22	18	14	10	8	9	13	7	20	22	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	232	219	451		
Jefferson	15	15	16	10	10	10	13	6	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	158	137	295		
Jennings	15	16	16	10	10	10	13	6	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	163	153	316		
Johnson	31	28	15	20	29	20	12	19	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	263	263	528	
Knox	18	8	18	17	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	180	168	348	
Kosciusko	13	8	18	17	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	205	185	390		
Lagrange	7	6	11	9	15	15	8	22	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	108	91	199		
Lake	10	10	7	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	135	125	260		
Laporte	15	24	13	16	16	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	228	233	461		
Lawrence	10	22	13	12	8	13	30	11	27	31	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	105	105	210		
Madison	14	71	13	12	8	13	30	11	27	31	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	105	105	210		
Marion	71	71	6	81	13	13	68	65	67	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	1080	989	2079		
Marshall	10	10	7	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	148	151	299		
Martin	8	9	10	14	9	11	10	11	14	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	133	136	299		
Miami	17	13	14	10	16	22	18	16	23	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	208	208	477		
Monroe	22	23	23	10	19	17	18	22	18	23	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	101	173	384		
Montgomery	22	23	23	10	19	17	18	22	18	23	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	208	208	477		
Morgan	12	12	12	12	10	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	143	163	306		

TABLE No. VII—Continued.

COUNTIES.	1883.												1882.						Totals.		Whole Number.						
	Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.			Nov.		Dec.		Males.	Females.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.		
Newton	10	2	12	11	7	3	9	11	6	4	6	11	7	10	7	1	10	7	9	6	6	7	5	3	94	80	
Noble	5	6	6	12	4	4	18	18	2	16	15	8	14	15	13	15	13	14	17	12	13	3	5	10	166	150	
Ohio	6	5	6	12	4	4	18	18	2	16	15	8	14	15	13	15	13	14	17	12	13	3	5	10	166	150	
Orange	15	8	11	8	7	4	12	9	10	15	8	11	17	22	12	5	6	7	11	11	10	8	8	4	132	249	
Owen	11	15	18	19	15	21	13	12	11	13	10	10	25	9	11	16	23	22	5	6	8	8	13	12	163	326	
Parke	10	6	11	15	16	17	21	13	7	15	14	18	11	25	18	22	24	8	6	4	8	5	7	161	153	319	
Perry	17	12	13	10	15	6	7	10	11	13	16	10	15	11	16	16	24	13	14	5	9	6	3	5	160	117	
Pike	29	36	21	31	36	28	22	18	26	22	22	29	26	23	38	41	43	49	29	19	22	28	16	28	331	352	
Porter	9	8	3	5	7	9	5	6	13	6	1	9	10	7	5	10	9	5	4	4	5	6	2	6	73	81	
Posey	20	19	26	19	13	11	31	39	40	31	16	18	25	21	17	20	24	24	33	26	11	15	19	12	244	407	
Pulaski	42	22	41	28	22	21	39	39	40	31	16	18	25	21	17	20	24	24	33	26	11	15	19	12	244	407	
Putnam	12	16	13	5	16	14	9	13	11	10	5	17	18	11	19	18	16	14	15	15	12	13	31	17	438	361	
Randolph	12	16	13	5	16	14	9	13	11	10	5	17	18	11	19	18	16	14	15	15	12	13	31	17	438	361	
Ripley	16	14	14	22	24	17	28	24	12	11	12	11	19	11	26	21	16	16	13	15	12	13	21	16	157	208	
Rush	1	15	12	17	17	23	13	14	13	19	12	23	22	22	19	22	19	22	4	15	16	1	1	18	217	425	
Scott	1	15	12	17	17	23	13	14	13	19	12	23	22	22	19	22	19	22	4	15	16	1	1	18	217	425	
Shelby	15	19	12	17	17	23	13	14	13	19	12	23	22	22	19	22	19	22	30	16	16	23	12	13	16	21	37
Spencer	21	3	2	7	2	3	3	2	1	1	1	1	4	4	2	1	3	4	25	3	5	3	1	11	222	451	
Starke	14	9	8	7	3	6	6	8	9	11	6	7	8	8	6	10	6	11	7	4	5	3	6	11	22	169	
Steuben	19	19	8	6	10	3	20	13	27	17	19	16	25	20	34	32	35	23	6	16	18	16	20	17	199	416	
St. Joseph	23	18	9	12	10	15	20	13	27	17	19	16	25	20	34	32	35	23	13	16	18	16	20	17	217	448	
Sullivan	9	9	8	9	15	7	9	9	12	12	5	8	19	25	34	30	26	13	7	16	19	6	6	6	224	416	
Switzerland	20	35	23	24	10	14	22	37	38	34	22	18	18	16	21	22	17	44	10	25	28	19	31	24	310	594	
Tipton	18	20	16	10	25	16	14	17	16	10	16	18	16	9	14	17	15	25	14	15	14	13	17	17	197	372	
Union	7	2	4	4	5	4	3	4	3	6	1	5	8	4	2	2	9	6	1	3	2	3	4	3	4	49	89
Vanderburgh	50	59	35	48	42	43	44	44	37	6	28	32	72	40	52	51	39	47	51	47	30	50	59	3	518	1,067	
Vermillion	7	9	9	2	5	5	4	5	6	3	12	12	8	8	5	6	13	7	13	25	26	30	7	3	77	107	
Vigo	38	29	49	34	38	35	35	35	51	37	43	47	46	42	36	36	67	47	35	25	28	49	38	39	522	1,192	

Wabash	24	19	21	26	23	24	25	21	16	24	18	17	29	21	32	15	24	32	28	304	275	579
Warren	11	12	5	9	7	13	4	11	2	16	13	17	16	21	21	7	10	9	5	117	155	272
Warrick	25	24	26	23	23	21	26	21	21	14	20	15	16	10	20	25	19	16	17	263	209	472
Washington	20	9	8	12	10	11	11	20	14	4	7	7	7	7	21	10	25	18	11	159	143	302
Wayne	36	50	45	38	38	38	52	51	37	29	39	43	44	31	27	31	41	42	38	469	469	938
Wells	7	6	7	6	12	13	16	15	12	10	13	10	13	14	15	4	13	3	1	93	86	179
White	9	17	9	12	11	8	11	9	10	11	8	5	7	8	15	23	18	7	10	128	129	255
Whitley	19	19	14	19	19	18	19	14	25	23	20	15	19	13	14	31	24	16	13	236	216	452
Grand total	1586	1507	1513	1422	1454	1327	1572	1503	1625	1454	1566	1416	1705	1602	1609	1797	1467	1418	1372	19,547	18,148	37,695

17.

TABLE No. VII—Continued.

COUNTIES.	Coloꝛ.				American.	Foreign.	Am. Father.	For. Mother.	Am. Father.	For. Mother.	Father not Reported.	Mother not Reported.
	White.		Colored.									
	M.	F.	M.	F.								
Adams.	175	162			220	72	6	9	22	16	12	
Allen.	373	350	2		336	96	9		30	185	185	
Bartholomew.	335	296	4	4	562	23	1		26	18	15	
Benton.	150	139			163	38	8		15	59	33	
Blackford.	121	107			169	6	3		1	47	47	
Boone.	262	248		1	447	14	16		23	6	1	
Brown.	117	90			203	1	1		11	1	1	
Carroll.	276	258			479	11	2		11	21	19	
Cass.	91	90		1	127	30	10		6	10	10	
Clark.	242	210	16	8	366	57	13		24	10	9	
Clay.	285	260	5	4	385	93	9		49	15	16	
Clinton.	121	108			198	8	2		4	15	13	
Crawford.	101	106			135	21				70	72	
Davies.	311	291	5	1	533	96	4		24	17	10	
Dearborn.	235	203			305	96	3		16	14	11	
Decatur.	218	196	2	1	358	30	9		14	6	5	
Dekalb.	79	65			109	11	3		4	14	15	
Delaware.	323	283	2	4	502	11	2		7	82	67	
Dubois.	246	222	1		398	31	13		24	3	3	
Elkhart.	243	236			241	167	6		20	39	41	
Fayette.	107	117	5	7	208	17	3		2	3	1	
Floyd.	273	265	15	14	437	57	25		37	8	8	
Fountain.	119	127			225	6	3		9	2	2	
Franklin.	127	110	1		190	24	4		12	5	5	
Fulton.	121	79			185	2	1		2			
Gibson.	251	235	5	6	451	9	5		18	7	8	
Grant.	199	183	2		333	8	3		8	29	17	
Greene.	290	263		1	548	4			5	11	4	
Hamilton.	363	309	13	6	652	9	1		1	24	24	
Hancock.	224	185			399	7			2	6	6	

Harrison	218	226	1	4	386	19	1	20	16	16
Hendricks	297	253	3	7	525	10	2	8	20	17
Henry	351	292	5	8	611	8	1	2	24	19
Howard	290	533	5	1	487	8	4	14	34	27
Huntington	306	258				20				
Jackson	255	265	1		434	34	3	4	40	40
Jasper	101	101			180	15	3	8	15	15
Jay	229	218	3	1	418	14	1	1	22	16
Jefferson	130	130	11	7	247	30	1	9	7	2
Jennings	159	151	4	2	286	10		15	4	4
Johnson	259	258	4	5	508	5	1	6	1	
Knox	177	166	3	2	232	78	4	8	20	21
Kosciusko	205	185			300	9	1	8	70	79
Lagrange	108	91			184	4		1	8	8
Lake	135	125			139	75	17	20	6	7
Laporte	227	233	1		231	170	13	18	29	10
Lawrence	105	105			196	2	1		7	7
Madison	287	244	1	2	487	2		4	40	40
Marion	1015	925	65	74	1189	545	9	56	248	171
Marshall	148	151			218	35	10	6	28	13
Martin	133	136			247	5	8	1	1	1
Miami	267	207	1	2	329	21	3	6	114	13
Montroe	185	169	6	4	351	7		6	1	1
Montgomery	261	262	4	4	473	17	10	10	10	4
Morgan	143	163			284	6		1	11	8
Newton	94	80			123	19	2	12	18	11
Noble	166	150			286	36		7	9	9
Ohio	47	47	3	1	90	7		1		
Orange	132	114		1	234				6	5
Owen	163	162		1	313	3		4	6	4
Park	155	154	6	4	295	5	2	3	10	11
Perry										
Pike	160	117			247	6	1	2	16	16
Porter										
Posey	326	344	5	8	582	51	20	19	5	1
Pullaski	73	81			133	15		3	1	
Putnam	253	244			461	14	4	6	9	
Randolph	433	393	5	2	757	19		2	14	12
Ripley	154	162	1		227	60	2	6	16	16
Rush	213	203	4	5	373	11		14	33	18

TABLE No. VII—Continued.

COUNTIES.	COLOR.				American.	Foreign.	Am. Father and For. Mother.	For. Father. Am. Mother.	Father not Reported.	Mother not Reported.
	White		Colored.							
	M.	F.	M.	F.						
Scott.	16	21	3	2	33	2	2	1	1	108
Shelby.	205	251	11	9	338	20	3	4	108	8
Spencer.	211	200	11	9	373	3	2	15	20	20
Stark.	28	22	1	1	44	4	1	2	2	2
Steuben.	81	88	1	1	164	4	1	2	2	2
St. Joseph.	213	197	4	2	227	87	7	17	72	51
Sullivan.	222	223	2	1	427	5	2	5	4	4
Switzerland.	83	99	1	3	180	1	1	1	5	5
Tippecanoe.	308	283	1	1	396	157	12	10	22	23
Tipton.	197	176	2	1	328	13	2	7	14	14
Union.	49	38	2	2	70	8	3	6	5	5
Vanderburgh.	499	489	50	29	628	298	31	27	108	65
Vermillion.	97	76	1	2	156	2	10	2	12	7
Vigo.	511	431	11	9	714	107	10	53	69	65
Wabash.	298	273	6	2	455	25	2	4	83	83
Warren.	117	155	3	3	241	7	1	6	14	14
Warrick.	260	246	3	3	283	35	4	19	126	126
Washington.	159	143	1	1	299	6	4	4	25	13
Wayne.	449	453	20	16	698	112	13	26	82	57
Wells.	93	86	1	1	155	18	4	5	3	3
White.	126	129	1	1	227	15	2	16	7	7
Whitley.	235	215	1	1	408	19	4	16	3	3
Grand total	19,210	17,873	337	275	30,274	3,276	397	947	2,445	1,965

TABLE No. VII—Continued.

COUNTIES.	Whole Number.	GROUPED AGES OF PARENTS.												No. of Child of Each Mother.																	
		Under 20.		20 to 25.		25 to 30.		30 to 35.		35 to 40.		40 to 50.		Father, 50 to 60.	Father, 60 to 70.	Mother not Reported.	Mother Reported.	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh and Over.	Not Reported.		
		Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo																		
Adams	1	32	42	107	126	89	73	88	63	52	44	51	13	4	84	74	41	38	38	26	26	124	124	6	9	1	24	3	6	34	
Allen	1	41	51	123	132	123	132	127	79	56	35	39	39	25	256	206	156	138	75	58	32	24	24	24	9	9	6	1	8	3	
Bartholomew	3	49	93	191	166	152	133	120	50	28	44	16	24	15	6	160	138	90	84	24	25	25	25	25	7	7	15	3	8	2	
Benton	1	14	31	68	57	79	68	59	50	23	44	16	3	11	19	56	48	43	35	20	14	14	14	14	11	11	3	4	1	6	
Blackford	3	3	25	64	64	53	45	42	39	43	30	23	7	3	16	49	56	56	22	15	17	17	17	17	9	9	3	4	1	6	
Boone	6	54	78	141	132	116	96	80	73	57	91	46	18	12	128	107	70	57	38	29	28	28	28	28	9	9	7	14	8	10	
Brown	3	27	33	71	58	51	49	38	30	21	46	25	46	25	23	50	15	15	9	15	15	15	15	15	9	9	3	8	8	8	
Carroll	1	17	23	42	29	22	31	19	18	10	13	4	2	2	38	137	116	85	67	49	24	11	11	11	10	10	8	5	4	8	
Cass	1	17	23	42	29	22	31	19	18	10	13	4	2	2	38	137	116	85	67	49	24	11	11	11	10	10	8	5	4	8	
Clark	2	35	54	135	108	118	109	65	74	52	68	28	14	40	37	144	91	68	45	44	26	26	26	26	15	15	5	10	7	52	
Clay	1	53	107	186	129	115	63	29	55	53	33	14	10	56	52	132	117	86	66	41	33	25	25	25	18	18	11	10	2	6	
Clinton	1	12	23	53	48	42	33	31	24	19	9	9	2	2	62	47	26	26	12	16	16	16	16	16	10	10	3	6	4	2	
Crawford	3	16	27	46	39	48	50	36	33	25	13	13	19	21	45	30	31	27	23	16	9	9	9	9	4	4	5	9	10	2	
Davies	10	57	87	157	137	146	159	93	83	68	69	31	17	17	142	131	94	77	41	32	21	21	21	21	23	23	8	5	5	17	
Dearborn	1	27	54	113	117	101	73	61	58	53	65	34	12	45	101	84	72	42	41	32	27	17	17	17	13	13	5	5	7	17	
Decatur	3	24	51	106	92	108	93	88	66	67	73	27	19	7	98	83	58	28	20	52	30	14	14	14	16	16	9	15	1	1	
DeKalb	3	31	54	122	107	124	105	91	65	77	48	15	13	19	31	166	116	101	70	47	26	26	26	26	11	11	3	3	10	4	
Delaware	1	51	122	197	157	115	151	113	105	93	44	65	25	26	126	107	75	55	37	23	23	23	23	23	11	11	7	3	3	10	
Dubois	3	27	59	115	115	101	93	88	66	67	73	27	19	12	98	83	58	28	20	52	30	14	14	14	16	16	9	15	1	1	
Elkhart	5	39	62	159	120	101	95	77	69	47	48	15	13	31	170	78	67	50	36	27	13	13	13	13	11	11	2	3	4	5	
Fayette	1	19	36	77	67	49	38	32	35	33	36	19	9	12	68	39	35	25	27	12	12	12	12	12	5	5	4	5	2	2	
Floyd	1	24	79	144	142	160	116	88	65	35	33	23	19	38	176	89	66	40	35	27	27	27	27	27	13	13	6	7	16	7	
Fountain	3	16	40	86	61	57	53	47	35	24	46	10	8	41	6	57	53	40	27	19	19	19	19	19	8	8	1	3	3	3	
Franklin	1	11	24	44	44	44	44	44	21	21	21	21	28	99	99	54	54	23	24	16	6	6	6	6	10	10	6	8	5	5	
Fulton	11	7	10	55	55	45	21	23	24	31	25	28	8	2	58	58	23	20	14	16	16	16	16	16	10	10	3	3	3	3	
Gibson	2	46	71	142	132	125	104	84	74	57	73	28	15	16	104	96	68	63	47	38	21	18	18	18	15	15	7	8	5	7	
Grant	1	20	34	101	90	83	91	60	38	44	59	23	8	2	40	98	69	64	51	23	17	17	17	17	13	13	3	3	7	7	
Greene	1	1	4	106	124	128	119	97	60	39	62	87	26	28	131	105	93	71	53	39	24	18	18	18	15	15	11	5	9	9	
Hamilton	1	68	131	222	182	161	101	49	40	49	56	78	25	33	175	150	138	125	71	56	40	35	35	35	25	25	12	12	5	8	8
Hancock	7	41	110	161	161	92	99	85	85	85	83	49	12	34	1103	94	146	146	93	69	34	23	23	23	23	11	11	8	8	8	8

VITAL STATISTICS.

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Parke	1	24	41	91	85	82	63	37	36	30	44	23	9	36	28	96	75	41	33	13	15	11	8	8	7	3	5
Perry																											
Pike		32	49	95	70	63	44	36	49	25	36	13	4	3	17	8	79	49	48	20	19	12	15	9	5	4	8
Porter																											
Posey	3	62	94	195	169	189	162	127	105	65	90	32	28	3	23	7	169	132	123	69	46	55	32	26	4	7	5
Pulaski																											
Putnam	8	12	19	44	35	41	38	24	19	15	16	8	10	2	13	8	44	27	24	17	9	13	6	2	4	3	9
Randolph	3	62	190	272	228	183	159	110	74	61	73	19	9	9	53	122	173	127	51	41	25	25	13	17	7	11	
Ripley																											
Rush	2	38	57	124	114	113	80	77	86	46	56	18	11	2	13	7	182	131	91	71	41	31	9	16	11	6	2
Scott																											
Shelby	1	40	54	126	116	121	103	67	62	38	55	26	12	3	46	1	107	88	82	43	37	24	15	15	17	10	4
Spencer	2	34	46	114	120	97	57	75	71	64	53	21	13	3	17	107	88	82	43	37	24	15	15	17	10	4	
Stark																											
Steuben	2	15	36	47	46	37	20	21	20	15	4	1	5	1	22	50	40	23	13	16	9	1	3	3	2	1	3
St. Joseph	1	38	48	123	110	90	89	59	55	43	57	21	9	41	41	118	86	44	44	36	16	14	11	5	5	5	29
Sullivan	1	35	73	141	136	108	73	67	81	59	55	13	15	6	23	15	124	95	73	50	36	24	10	5	5	5	8
Switzerland	5	13	33	57	37	30	33	34	26	19	29	15	12	1	18	18	170	130	96	43	22	23	22	8	3	3	1
Tippecanoe																											
Tipton	1	30	65	127	97	80	53	39	61	44	52	13	13	3	14	94	79	43	47	39	25	19	12	4	4	4	
Union	2	10	13	28	20	17	22	16	8	6	17	8	1	3	6	29	20	18	8	6	3	3	1	1	2	1	54
Vanderburgh	4	53	143	313	237	262	215	190	178	120	144	60	29	107	62	262	170	125	116	93	83	63	30	2	16	15	1
Vermillion																											
Vigo	2	77	126	278	230	226	183	156	157	92	129	40	31	3	92	304	184	136	106	64	60	30	20	13	8	1	23
Wabash																											
Warren	1	22	29	84	85	113	65	36	36	36	63	21	4	14	14	168	73	59	61	21	12	12	10	16	13	4	4
Warrick	1	32	96	141	126	118	86	63	66	66	66	36	11	2	38	57	106	73	59	61	21	12	12	10	16	13	4
Washington																											
Wayne																											
Wells	2	20	39	65	38	46	35	20	18	18	19	9	3	3	9	96	36	22	21	10	10	9	6	2	1	1	1
White	2	34	47	117	133	126	106	86	36	31	63	31	17	2	3	110	48	33	27	27	11	28	11	9	5	1	2
Whitley																											
Grand Total	191	2847	5640	10973	9329	9227	7721	5391	5472	4657	4975	1888	7035	149	3836	9833	7500	5001	4199	3944	2178	1496	1116	694	450	512	825
	37338																										

TABLE No. VII.

BIRTHS.

The total number of births reported during the year was thirty-seven thousand six hundred and ninety-five, of which, nineteen thousand two hundred and ten were white males; seventeen thousand eight hundred and seventy-three white females; three hundred and thirty-seven black males, and two hundred and seventy-five black females. Total males, 19,547, or 51.85 per cent. Females, 18,148, or 48.15 per cent. of total.

The reported births outnumber the reported deaths in the proportion of 2.52 birth to each death. This proportion is greater than it should be, and results from the imperfect death reports. In the county of Marion, where very full death reports are received, the proportion is 1.19. However, the proportion of births to deaths is always larger in rural than urban districts. I presume that the proper proportion is 1.5 births to each death.

The *colored* births are in the proportion of 1.62 per cent. of the total number. This is not in accordance with the usual observation in this particular. In 1880, the colored population was in the proportion of 2.02 to the total population of the State. We have always understood that the blacks were more prolific than the whites; hence we judge that the colored births were not so fully reported as the white. Yet in the county of Marion, where, according to the census of 1880, the colored population was 7.82 per cent. of the total, the proportion of reported births is only 6.20 per cent. of the total reports during the last year. This question is an interesting one, and will be carefully examined as our returns become more nearly complete.

Of the births reported thirty thousand two hundred and seventy-four were where father and mother were both American. Both foreign, three thousand two hundred and seventy-six. American father and foreign mother, three hundred and seventy-nine. Foreign father and American mother, nine hundred and forty-seven. The proportion of foreign to native

population is 7.54 per cent of the total, while the proportion of foreign births is 8.50 per cent. of the total births. This substantiates the idea that the foreign population multiplies more rapidly than the native. In two thousand four hundred and forty-five cases the fathers' nationality was not reported, and in one thousand nine hundred and sixty-five, that of the mother was not given. These omissions are unfortunate, and should not occur. The greatest number of births was in September; the least number was in December.

GROUPED AGES OF PARENTS.					NO. OF CHILD OF THIS MOTHER.		
	Father.	Per cent. to Total.	Mother.	Per cent. to Total.	No.	Total.	Per cent. to Total.
Under 20	191	.5	2,847	7.6	1	9,833	26.4
20 to 25	5,640	15.1	10,973	29.4	2	7,500	21.0
25 to 30	9,329	25.1	9,227	24.7	3	5,601	15.0
30 to 35	7,721	20.7	5,991	16.1	4	4,199	11.2
35 to 40	5,472	14.6	4,067	11.0	5	2,944	7.1
40 to 50	4,975	13.3	1,888	5.1	6	2,178	5.9
50 to 60	1,035	2.8			7	1,496	4.0
60 to 70	149	.4			8	1,116	2.9
Father not reported	2,826	7.6			9	684	1.8
Mother not reported			2,355	6.1	10	450	1.2
Total	37,338	100.0	37,388	100.0	11	512	1.3
					N.R.	825	2.2

TABLE No. VIII.

STILL BIRTHS, PLURALITY BIRTHS, ILLEGITIMATE BIRTHS

In the State of Indiana, arranged by Counties, Sex, Nationality Color and Per Cent. of each to total number of Births, for the year ending Sept. 30, 1883.

COUNTIES.	Whole Number Still Births.	SEX.		NATIONALITY OF MOTHER.			COLOR OF MOTHER.	
		Males.	Females.	American.	Foreign.	Not Re- ported.	White.	Colored.
Adams	8	7	1	6	2		8	
Allen	13	7	6	8	5		13	
Bartholomew	25	14	11	25			25	
Benton	1	1			1		1	
Blackford	5	2	3	5			5	
Boone	13	10	3	13			13	
Brown								
Carroll	28	19	9	27	1		28	
Cass	2	2		2			2	
Clark	10	5	5	8	2		9	1
Clay	15	11	4	10	5		15	
Clinton	6	1	5	6			6	
Crawford	10	6	4	10			10	
Daviess	13	9	4	12	1		13	
Dearborn	13	6	7	9	4		13	
Decatur	11	6	5	10	1		11	
Dekalb	4	4		1	3		4	
Delaware	6		6	6			6	
Dubois	16	9	7	13	3		16	
Elkhart	2	1	1	2			2	
Fayette	7	3	4	6	1		7	
Floyd	2	2		2			1	1
Fountain	11	5	6	9	2		11	
Franklin	1		1	1			1	
Fulton	2	2		2			2	
Gibson	12	5	7	11	1		12	
Grant	2	2		2			2	
Greene	14	4	10	14			14	
Hamilton	16	9	7	16			16	
Hancock	3	3		3			3	
Harrison	7	3	4	6	1		7	
Hendricks	20	16	4	20			20	
Henry	21	13	8	21			20	1
Howard	10	2	8	10			10	
Huntington	15	8	7	12	3		15	
Jackson	1		1	1			1	
Jasper	2	1	1	2			2	
Jay	1	1		1			1	
Jefferson	1		1	1			1	
Jennings	3	2	1	2	1		3	

TABLE No. VIII—Continued.

COUNTIES.	Whole Number Still Births.	SEX.		NATIONALITY OF MOTHER.			COLOR OF MOTHER.	
		Males.	Female.	American.	Foreign.	Not Re- ported.	White.	Colored.
Johnson	18	14	4	18			18	
Knox	11	8	3	7	4		11	
Kosciusko	12	10	2	10	2		12	
Lagrange	3		3	1			1	
Lake	1	1	1				1	
Laporte								
Lawrence	2	1	1	2			2	
Madison	14	6	8	13	1		14	
Marion	112	56	56	73	39		101	11
Marshall	2		2	2			2	
Martin	4	1	3	3	1		4	
Miami	3	2	1	3			3	
Monroe	7	4	3	5	2		7	
Montgomery	10	5	5	10			10	
Morgan	2	1	1	2			2	
Newton	8	3	5	8			8	
Noble	2	1	1	2			2	
Ohio	1	1		1			1	
Orange	4	1	3	4			4	
Owen	6	5	1	6			6	
Parke	10	3	7	10			9	1
Perry								
Pike	15	10	5	11	4		15	
Porter								
Posey	1		1	1			1	
Pulaski	6	2	4	6			6	
Putnam	16	8	8	16			16	
Randolph	17	9	8	15	1		14	2
Ripley	1	1		1			1	
Rush	6	3	3	6			6	
Scott								
Shelby	2		2	2			2	
Spencer	7	6	1	5	2		6	1
Starke	5	2	3	5			5	
Steuben	4	1	3	4			4	
St. Joseph	18	12	6	12	6		18	
Sullivan	13	10	3	13			12	1
Switzerland	8	3	5	8			8	
Tippecanoe	21	13	8	17	4		20	1
Tipton	15	11	4	15			15	
Union								
Vanderburgh	18	10	8	15	3		18	
Vermillion	6	4	2	6			6	
Vigo	28	19	9	26	2		28	
Wabash	3	2	1	3			2	1
Warren	1		1	1			1	
Warriek	17	10	7	13	4		17	
Washington	6	5	1	6			6	
Wayne	20	6	14	19	1		18	2
Wells	6	2	4	6			6	
White	1	1		1			1	
Whitley	6	2	4	6			6	
Total	852	476	376	734	113		825	23

TABLE No. VIII—Continued.

COUNTIES.	Whole Number Plurality Births.	SEX.		NATIONALITY OF MOTHER.			COLOR OF MOTHER.	
		Males.	Females.	American.	Foreign.	Not Re- ported.	Males.	Colored.
Adams.	1	2	5	1	2		1	
Allen.	10	15	7	8			10	
Bartholomew.	9	11	7	9			9	
Benton.	9	7	5	6			6	
Blackford.	2	2	2	2			2	
Boone.	6	7	5	5	1		6	
Brown.								
Carroll.	4	6	2	4			4	
Clark.	6	11	1	5	1		5	1
Cass.								
Clay.	3	1	5	3			3	
Clinton.	3	4	1				3	
Crawford.	3	3	1	3			3	
Daviess.	9	11	7	9			9	
Dearborn.	4	5	3	3	1		4	
Decatur.	2	1	3	2			2	
Dekalb.	3	4	2	1	2		3	
Delaware.	8	9	7	8			8	
Dubois.								
Elkhart.	6	3	9	3	3		6	
Fayette.	3	3	3	3			3	
Floyd.	3	3	3	3			3	
Fountain.	2	3	1	2			2	
Franklin.	1		2	1			1	
Fulton.								
Gibson.	7	6	8	7			7	
Grant.	3	6		2	1		3	
Greene.	7	7	7	7			7	
Hamilton.	4	4	4	4			4	
Hancock.	4	4	4	4			4	
Harrison.	3	1	5	3			3	
Hendricks.								
Henry.	3	5	1	3			3	
Howard.	8	8	8	8			7	1
Huntington.	6	5	7	5	1		6	
Jackson.	6	5	7	6			6	
Jasper.	2	3	1	2			2	
Jay.	1	1	1	1			1	
Jefferson.	1	2		1			1	
Jennings.	1	1	1		1		1	
Johnson.	5	6	4	5			5	
Knox.	6	6	6	4	2		6	
Kosciusko.	2	2	2	2			2	
Lagrange.	2	2	3	1			1	
Lake.	3	4	2	2	1		3	
Laporte.								
Lawrence.	4	4	4	4			4	
Madison.	2	2	2	2			2	
Marion.	20	19	21	13	7		19	1
Marshall.	3	2	4	3			3	

TABLE No. VIII—Continued.

COUNTIES.	Whole Number Plurality Births.	SEX.		NATIONALITY OF MOTHER.			COLOR OF MOTHER.	
		Males.	Females.	American.	Foreign.	Not Re- ported.	White.	Colored.
Martin	7	4	10	7	.	.	7	.
Miami	5	7	3	5	.	.	5	.
Monroe . . . . .	.	.	.	.	.	.	.	.
Montgomery	6	5	7	6	.	.	6	.
Morgan	4	4	4	4	.	.	4	.
Newton . . . . .	.	.	.	.	.	.	.	.
Noble	3	2	4	2	1	.	3	.
Ohio . . . . .	.	.	.	.	.	.	.	.
Orange	6	6	6	6	.	.	6	.
Owen	1	.	2	1	.	.	1	.
Parke	4	4	4	4	.	.	4	.
Perry . . . . .	.	.	.	.	.	.	.	.
Pike	5	5	5	5	.	.	5	.
Porter . . . . .	.	.	.	.	.	.	.	.
Posey	6	7	5	5	1	.	6	.
Pulaski	2	1	3	2	.	.	2	.
Putnam	3	3	3	3	.	.	3	.
Randolph	8	11	5	8	.	.	7	1
Ripley	3	3	3	2	1	.	3	.
Rush	2	2	2	2	.	.	2	.
Scott	1	2	.	1	.	.	1	.
Shelby	7	5	9	7	.	.	7	.
Spencer	3	5	1	2	1	.	3	.
Starke	1	2	.	1	.	.	1	.
Steuben	1	2	.	1	.	.	1	.
St. Joseph	6	8	4	6	.	.	6	.
Sullivan	5	7	3	5	.	.	5	.
Switzerland . . . . .	.	.	.	.	.	.	.	.
Tippecanoe	7	6	8	3	4	.	7	.
Tipton	8	7	9	8	.	.	8	.
Union . . . . .	.	.	.	.	.	.	.	.
Vanderburg	7	11	3	6	1	.	7	.
Vermillion	1	2	.	1	.	.	1	.
Vigo	9	11	7	9	.	.	9	.
Wabash	10	10	10	10	.	.	10	.
Warren	2	2	2	2	.	.	2	.
Warwick	5	5	5	5	.	.	5	.
Washington	4	6	2	4	.	.	4	.
Wayne	9	10	8	8	1	.	9	.
Wells	5	5	5	4	1	.	5	.
White	1	2	.	1	.	.	1	.
Whitley	5	4	6	5	.	.	5	.
Total	357	392	324	323	34	.	353	4

† Triplets.

TABLE No. VIII—Continued.

COUNTIES.	Whole Number Il- legitimate Births.	SEX.		NATIONALITY OF MOTHER.			COLOR OF MOTHER.	
		Males.	Females.	American.	Foreign.	Not Re- ported.	White.	Color.
Adams.	2	1	1	2			2	
Allen.	4	1	3	4			4	
Bartholomew.	6	3	3	6			6	
Benton.	2		2	2			2	
Blackford.	1	1		1			1	
Boone.	3	2	1	3			2	1
Brown.	2			2			2	
Carroll.	4	1	3	4			4	
Cass.								
Clark.	6	3	3	6			5	1
Clay.	3	2	1	2	1		3	
Clinton.	1	1		1			1	
Crawford.								
Daviess.	14	10	4	14			13	1
Dearborn.	2	1	1	2			2	
Decatur.	6	2	4	6			6	
DeKalb.	2	1	1	2			2	
Delaware.	3		3	3			3	
Dubois.	8	5	3	7	1		8	
Elkhart.	3	1	2	3			3	
Fayette.	3	2	1	3			3	
Floyd.	3	2	1	3			3	
Fountain.	2		2	2			2	
Franklin.	1	1		1			1	
Fulton.								
Gibson.	4		4	4			2	2
Grant.	3	2	1	3			2	1
Greene.	13	9	4	13			13	
Hamilton.	7	3	4	7			6	1
Hancock.	4	2	2	4			4	
Harrison.	2	1	1	2			1	1
Hendricks.	11	1	10	11			11	
Henry.	7	6	1	6	1		4	3
Howard.	10	8	2	10			9	1
Huntington.	6	1	5	5	1		5	1
Jackson.	5	2	3	5			5	
Jasper.								
Jay.	1		1	1			1	
Jefferson.	4	2	2	4			2	2
Jennings.	3	3		3			2	1
Johnson.	7	4	3	7			6	1
Knox.	7	6	1	6	1		6	1
Kosciusko.	3	1	2	2	1		3	
Lagrange.								
Lake.								
Laporte.								
Lawrence.			1					1
Madison.	2	2		2			2	
Marion.	38	22	16	32			28	19
Marshall.	2		2	1	1		2	

TABLE No. VIII—Continued.

COUNTIES.	Whole Number Il- legitimate Births.	SEX.		NATIONALITY OF MOTHER.			COLOR OF MOTHER.	
		Males.	Females.	American.	Foreign.	Not Re- ported.	White.	Colored.
Martin	2	2		2			2	
Miami	5	3	2	5			5	
Monroe	15	9	6	15			14	1
Montgomery	4	3		4			4	
Morgan	2	1	1	2			2	
Newton	3	2	1	2	1		3	
Noble	3	2	1	3			3	
Ohio	1	1		1			1	
Orange	2	1	1	2			2	
Owen	2	1	1	2			2	
Parke	8	6	2	8			3	5
Perry		2	7	9			9	
Pike	9							
Porter								
Posey	10	5	5	10			10	
Pulaski	2		2	2			2	
Putnam	1	1		1			1	
Randolph	10	4	6	10			9	1
Ripley	5	3	2	5			5	
Rush								
Scott		1	4	5			5	
Shelby	5	3	2	5			3	2
Spencer	5	1		1			1	
Starke	1	1		1			1	
Steuben	3	1	2	3			3	
St. Joseph	7	5	2	4	3		7	
Sullivan	2	1	1	2			2	
Switzerland	1	1		1			1	
Tippecanoe	5	1	4	5			5	
Tipton	6	3	3	6			6	
Union	2	2		2			2	
Vanderburgh	12	6	6	10	2		11	1
Vermillion	4	2	2	4			4	
Vigo	16	12	4	15	1		15	1
Wabash	3	3		3			3	
Warren	2	1	1	2			2	
Warrick	4	3	1	4			3	1
Washington	7	1	6	7			7	
Wayne	11	5	6	10	1		8	3
Wells	1	1		1			1	
White	2	1	1	2			2	
Whitley	4	1		4			4	
Total	408	217	191	387	21		364	44

TABLE No. VIII.

STILL BIRTHS.

The total number of still births reported was eight hundred and fifty-two, of which, four hundred and seventy-six were males and three hundred and seventy-six were females. The per cent. of males to total births, as before stated, is 51.85, while the proportion of males in still births is 55.8, an increase of 4 per cent. I can only account for this excess of males in still births on the hypothesis, that the male children being larger on an average, complicate labor more frequently than female children, and a larger number of them lose their lives in consequence.

The proportion of still births is 2.26 per cent. of the total births, or 22.6 still births in every thousand births, or forty-four births to one still birth. Of these there were seven hundred and thirty-four American mothers and one hundred and thirteen foreign mothers. The proportion of American mothers, in all births, to the foreign is 92.46 per cent. of total, yet the per cent. of American still birth mothers is only 86.65 of the total. This difference in favor of American mothers is a surprise. We have been under the impression that the number of still births occurring was greatest in American mothers. We think that the true explanation lies in the fact that a large proportion of foreign mothers are attended by ignorant, incompetent midwives, and that the lives of a large number of children are sacrificed in consequence thereof.

Twenty-three of the still birth mothers were colored. This is only 2.66 per cent. of the total. We learn from Table No. VII that the per cent. of colored mothers to the total number of births was 6.20 per cent.; yet we have only 2.66 per cent. of still birth mothers, proving that still births are more rare among colored than either the native or foreign population.

PLURALITY BIRTHS.

There were three hundred and fifty-seven plurality births: males, three hundred and ninety-two; females, three hundred and twenty-four. Two of these births were triplets. In this plurality, the male children were in the proportion of 54.74 per cent. of the births. This is an increase of the proportion of males to total births, and proves that in plurality births the males are in excess of single births. Three hundred and twenty-two of these mothers were Americans, and thirty-four foreign. The per cent. of American mothers to the total of these births was 90.2, and the foreign mothers, 9.8. This shows a slight excess in the proportional per cent. in favor of the plurality of foreign mothers, the proportion of the total births being 8.5 per cent.

Three hundred and fifty-three plurality mothers were white, and four colored; only 1.13 per cent. of colored mothers, while the proportion of white mothers is 1.62 per cent. of the total; thus showing that in plurality births, the proportion of whites is a trifle larger.

ILLEGITIMATE BIRTHS.

There were 408 illegitimate children born within the last year in Indiana—males, 217; females, 191. The proportion of males to total births was 51.85 per cent.; yet we have in the illegitimate class a proportion of 53.18, proving the correctness of the popular belief, that more than the ordinary per cent. of males are born in illegitimate births. Three hundred and eighty-seven of these mothers were Americans and 21 were foreign. The per cent. of American mothers to total births was 91.50 per cent., yet their proportion to illegitimate births was 94.85 per cent., showing the native population exceed in this class. Three hundred and sixty-four of these mothers were white and 44 colored.

The proportion of white mothers to total births was 98.88 of the total; yet the proportion of white mothers in illegitimate births is only 89.21, a showing of nearly 10 per cent. in favor of the virtue of the whites.

83	10	5	23	10	5	21	5	4	5	6	3	7	80	3	77	1	1
82	27	27	34	22	21	27	21	42	22	25	26	29	301	2	169	64	64
81	22	19	34	13	16	13	16	6	10	13	15	15	167	1	163	13	13
80	11	11	12	18	8	3	8	10	6	10	10	20	143	2	104	..	..
79	9	20	13	18	12	12	12	17	24	12	26	30	151	4	149	..	..
78	23	20	16	13	12	12	12	18	24	12	20	42	218	5	209	2	2
77	34	14	32	17	17	24	25	21	22	22	17	42	305	8	301	3	3
76	23	23	16	19	22	27	22	22	12	12	23	24	294	1	245	..	..
75	20	34	25	16	13	17	12	15	12	12	17	24	206	2	208	..	..
74	14	16	14	30	26	20	13	17	1	1	12	19	181	4	163	1	1
73	22	18	19	16	20	18	16	17	8	12	20	32	171	3	166	2	2
72	24	11	19	16	13	18	13	9	8	12	20	32	194	3	189	..	..
71	26	20	25	14	10	2	14	10	19	16	17	32	199	4	201	1	1
70	25	22	18	15	16	15	8	8	8	18	13	22	211	4	204	5	5
69	23	22	28	12	12	28	11	18	15	13	13	17	213	4	188	1	1
68	18	24	24	9	21	21	12	18	26	26	13	11	192	1	183	..	..
67	14	8	3	9	10	10	10	4	9	26	19	5	85	2	168	1	1
66	16	23	19	13	11	15	17	16	18	17	19	20	202	2	203	1	1
65	24	23	25	10	11	10	12	12	12	18	11	27	232	..	..	232	232
64	20	9	12	16	19	19	8	6	5	13	11	27	191	1	111	3	3
63	16	20	19	15	10	12	11	6	15	13	11	21	160	3	99	59	59
62	24	29	23	23	11	6	11	9	8	15	11	20	233	1	184	24	18
61	26	8	42	16	15	11	22	9	17	16	28	22	233	2	235	12	12
60	24	5	16	8	12	19	9	7	6	3	4	5	106	..	92	8	1
59	12	12	16	19	17	19	9	7	6	3	4	5	106	..	92	1	1
58	8	10	12	17	17	17	12	12	12	1	5	9	123	..	41	11	11
57	43	36	10	17	12	17	12	13	12	11	22	31	291	..	149	294	294
56	20	20	34	10	26	26	11	23	3	5	40	14	149	1	148	2	2
55	31	34	19	14	9	21	24	28	20	8	63	25	299	68	281	6	2
54	107	107	97	80	73	98	108	66	25	66	29	29	946	..	758	31	31
53	25	26	25	25	19	19	28	11	17	8	10	21	235	..	102	235	235
52	19	19	19	11	7	7	9	10	3	9	12	18	131	..	120	1	1
51	14	22	19	12	7	7	7	10	10	9	10	18	131	2	120	2	2
50	36	27	35	24	25	21	26	13	14	13	24	31	240	3	258	9	9
49	144	144	13	11	11	11	11	11	5	8	8	9	141	3	143	1	1
48	309	309	23	26	5	27	29	27	15	17	17	32	309	..	309	309	309
47	132	132	8	9	8	27	13	19	8	4	4	30	132	..	126	3	3
46	64	64	7	6	6	7	13	7	2	2	2	1	64	..	4	3	3
45	203	203	14	7	11	19	14	12	9	20	23	22	203	..	188	7	7
44	70	70	10	32	7	5	7	6	2	2	5	5	66	4	61	1	3
43	121	121	12	11	15	14	7	4	2	7	7	5	66	4	61	3	3
42	140	140	15	13	9	9	7	6	4	14	14	12	121	4	119	1	1
41	170	170	18	13	9	9	8	6	9	10	16	12	140	3	109	27	27
40	177	177	23	23	19	19	15	18	10	5	8	10	167	8	94	177	177
39	188	188	16	12	12	12	12	12	12	5	18	23	177	..	177	177	177
38	188	188	17	13	17	17	13	15	12	9	11	17	188	..	175	8	8
37	198	198	17	14	17	16	13	12	15	12	12	16	198	..	198	198	198

TABLE IX—Continued.

COUNTIES.	Whole Number.	1882.												1883.												Color.		NATIONALITY						Rem. Not Reported.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		October.			November.			December.			January.	February.	March.	April.	May.	June.	July.	August.	September.	White.	Colored.	Both American.	Both Foreign.	Am. Male.	For. Rem.	Am. Male.	For. Rem.	Male Not Reported.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Posey	257	30	9	25	33	18	9	21	19	17	14	8	25	38	241	13	241	9	4	2	4	9	...	241	119	12	4	9</

TABLE IX—Continued.

COUNTIES.	Whole Number.	GROUPED AGES.																		Not Reported.
		Under 20.		20 to 25.		25 to 30.		30 to 35.		35 to 40.		40 to 50.		50 to 60.		60 to 70.		Over 80.		
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Adams	125	3	28	42	65	45	12	18	8	2	14	6	9	5	1	4	2	1	1	
Allen	538	2	118	194	252	198	42	60	32	22	14	24	16	18	3	4	4	6	10	
Bartholomew	218	44	85	93	61	93	42	26	12	12	1	14	5	5	3	2	1	12	11	
Benton	98	15	30	30	48	35	19	13	3	6	5	15	5	1	2	3	3	3	3	
Blackford	111	2	31	44	41	26	18	14	7	8	5	8	5	6	4	3	3	3	3	
Boone	269	4	88	123	106	72	41	24	13	23	9	8	5	10	4	2	1	2	3	
Brown	95	4	36	46	34	23	11	9	4	2	3	4	4	2	1	1	1	1	3	
Carroll	179	1	43	75	82	52	26	24	7	11	11	9	6	4	1	1	1	291	297	
Cass	323	1	15	22	13	5	30	2	3	9	9	13	5	1	2	1	1	336	337	
Clark	558	1	52	91	109	66	30	19	11	19	13	13	5	10	3	2	2	235	236	
Clay	383	6	127	157	159	122	52	44	20	25	7	18	19	7	4	2	1	1	4	
Clinton	246	1	58	90	110	82	34	31	10	11	6	6	8	9	2	1	1	14	18	
Crawford	117	5	40	57	50	23	11	13	8	7	1	3	3	4	1	1	1	3	2	
Daviess	211	3	50	79	91	68	44	24	8	15	5	11	4	5	3	1	2	23	235	
Dearborn	235	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Decatur	154	1	31	54	68	47	29	25	5	8	6	3	4	5	2	6	2	4	7	
DeKalb	175	1	34	65	82	61	27	19	11	3	5	9	5	10	2	2	1	3	5	
Delaware	238	1	4	80	102	108	71	21	30	8	7	9	5	7	1	1	1	5	4	
Dickens	136	2	4	86	71	32	11	11	10	6	2	5	5	4	3	3	5	1	1	
Dubois	261	4	67	122	125	74	29	25	14	6	3	5	4	6	3	5	1	16	16	
Elkhart	261	4	67	122	125	74	29	25	14	6	3	5	4	6	3	5	1	16	16	
Fayette	83	2	11	33	42	24	9	5	10	4	7	4	1	2	2	3	1	6	8	
Floyd	308	1	39	73	78	47	14	23	3	3	7	6	5	9	2	3	1	128	136	
Fountain	187	2	24	32	41	34	27	13	8	10	1	6	5	4	2	2	1	90	98	
Franklin	143	4	33	55	68	51	23	19	3	3	9	7	4	2	2	3	3	225	246	
Franklin	151	1	38	56	63	54	33	13	8	11	9	7	4	4	4	3	1	225	246	
Fulton	151	1	38	56	63	54	33	13	8	11	9	7	4	4	4	3	1	225	246	
Gibson	228	6	66	90	85	62	39	28	25	17	3	7	3	9	2	3	1	9	13	
Grant	313	6	83	135	138	108	47	28	13	13	9	8	6	9	4	6	1	1	13	
Greene	224	5	81	92	86	63	26	29	12	11	7	13	6	4	1	1	1	1	3	
Hancock	206	2	85	96	97	56	25	16	12	8	7	13	6	4	1	1	1	1	1	
Hamilton	181	2	44	84	84	27	13	18	13	7	6	15	4	9	5	1	1	11	11	

[illegible]

TABLE No. IX.

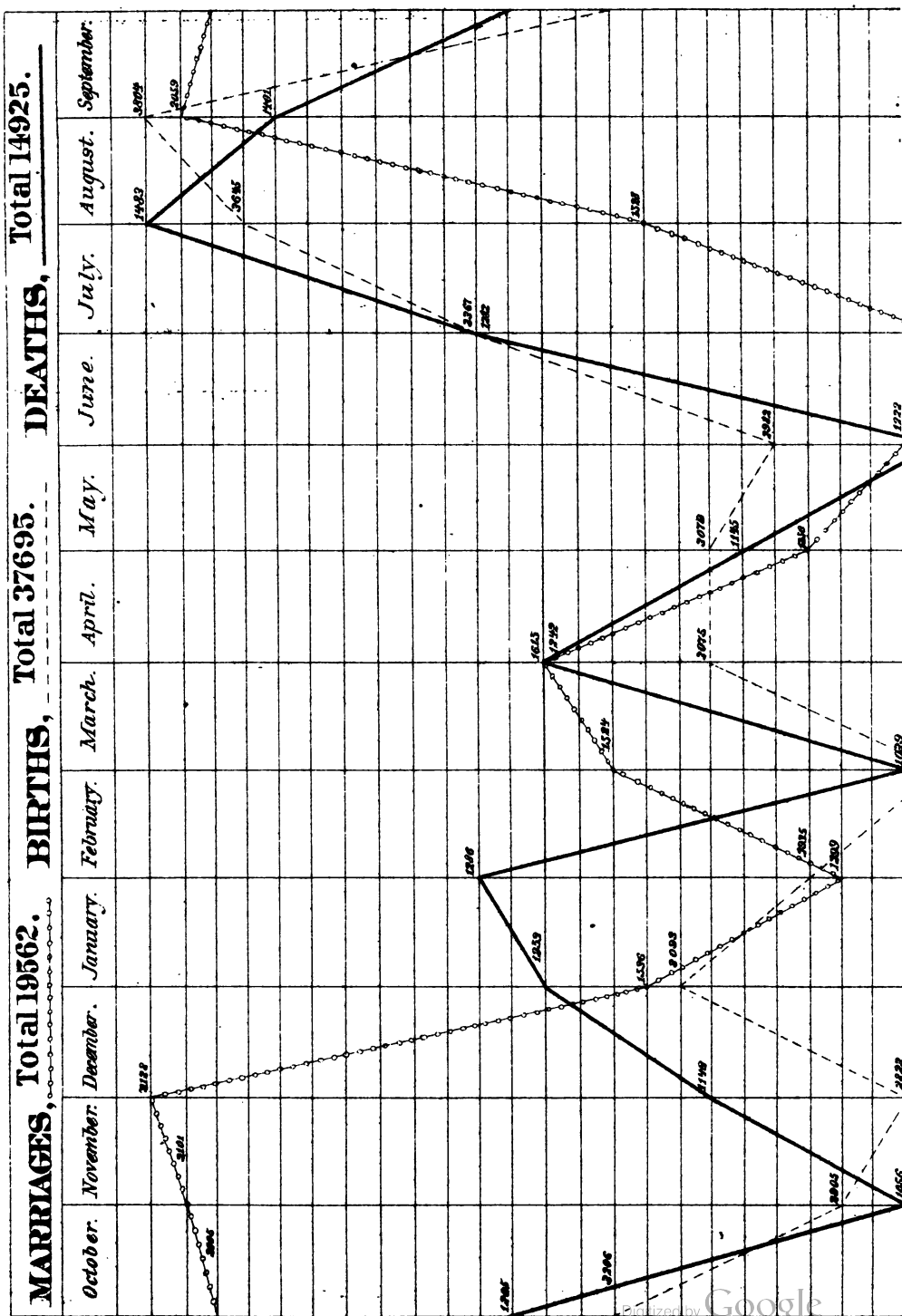
MARRIAGES.

There were 19,562 marriages reported within the year, against a proportional return of 12,396 last year, an increase of 57 per cent. We think this increase due to the more nearly complete returns within the year. The following table is a comparative statement of Births, Marriages and Deaths:

Year.	COUNTRIES.	Estimated Population.	BIRTHS.			MARRIAGES.			DEATHS.			Per Cent. of Births to Deaths.	Per Cent. of Marriages to Deaths.	Per Cent. of Marriages to Births.
			Whole Number.	Population to each Birth.	Births to each 1,000 Population.	Whole Number.	Pop'l't'n to each person married.	Marriage to each 1,000 Populat'n.	Whole Number.	Pop'l't'n to each Death.	Deaths to each 1,000 Populat'n.			
1882	Indiana.*	1,909,916	94,061	56	17.8	12,396	154	6.49	15,197	125.6	7.8	228	120	51
1883	Indiana.*	2,063,336	37,686	52.9	18.9	19,562	106.5	9.3	14,925	139.5	7.1	266	130	
	Indiana—													
	White		37,083	55.1	18.1	19,257	106	9.4	14,271	137	7.3	248	128	
	Colored		30,612	64.8	15.5	305	185	5.4	634	60.5	19.5	108	307	
	American		30,274			14,385			13,239					
	Foreign		3,276			1,241			1,502					
	Amer. Males and Foreign Females*		397			283								
	Foreign Males and Amer. Females		947			600								
	Not Reported		2,445			3,193			164					
	Massachusetts			88.1	28.2		52.9	18.9		50.7	19.7	133	104	
	England and Wales			28.2	35.4		60.2	16.6		45.4	22.0	180	132	
	Denmark			32.0	31.2		64.9	15.4		50.7	19.7	158	128	
	Sweden			32.0	31.2		73.5	13.6		52.0	19.2	163	141	
	Austria			39.9	38.9		58.1	17.2		32.4	30.8	130	178	
	Prussia			25.9	38.6		58.1	17.2		37.7	26.5	145	148	
	Netherlands			28.2	35.4		61.7	16.2		40.6	24.8	144	145	
	France†			38.4	28.0		62.9	15.9		42.3	23.8	110	148	
	Hungary†			23.4	42.6		48.0	20.8		28.0	35.9	109	167	
	Switzerland			31.6	31.6		65.3	15.3		40.1	24.9	127	162	
	Italy‡			26.8	37.2		66.7	15.1		33.4	28.9	125	196	
	Spain			29.8	37.2		66.2	15.1		33.6	28.7	125	196	
	German Empire ¶			25.1	39.8		56.5	17.7		37.0	27.0	144	135	
	United States									55.5	18.0			

*Nationality 356 less than total births on account of plurality births. †By marriages; individual rate, 19.78. ‡For 19 years. §For 9 years. ¶For 10 years. ¶For 17 years. ¶For 8 years. *For 2 years.

From the fact that for many years our statute law has required that the solemnization of marriages (excepting those among Friends) requires the procuring of a license and a report to the County Clerk, it is evident that the report of marriages is more complete than the report of births and deaths. The largest monthly number of marriages was in December, and the smallest number in July. The following diagram represents the births, deaths and marriages by months:



MARRIAGES, Total 19562. **BIRTHS, Total 37695.** **DEATHS, Total 14925.**

TABLE No. X.

BIRTHS, MARRIAGES AND DEATHS BY COUNTIES.

Showing the number of Births, Marriages and Deaths, occurring in the State of Indiana, arranged by Counties, according to Sex and Nationality, for the year ending September 30, 1883.

COUNTIES.	BIRTHS.					MARRIAGES.					DEATHS.		
	Sex.		Parentage.			Both Foreign.	Husb'd Amer.	Husb'd Foreign.	Husband Amer. Wife.	Husband Foreign Wife.	Not Reported.	Total.	Total.
			Both American.	Foreign.	For. Both.								
	Male.	Female.	Total.	Male.	Female.	Not Reported.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
Adams	175	162	337	72	96	16	100	20	17	5	1	123	90
Allen	375	350	725	96	96	185	334	139	45	9	8	538	282
Bartholomew	339	300	639	23	23	18	194	8	9	8	4	218	128
Benton	150	139	289	38	38	59	59	17	3	8	2	98	100
Blackford	121	107	228	6	6	47	108	2	7	1	2	111	87
Boone	263	249	512	14	14	6	250	10	2	7	4	269	118
Brown	207	203	410	1	1	1	85	4	1	1	4	95	56
Carroll	270	253	523	11	11	21	188	4	2	5	323	179	171
Cass	92	90	182	30	30	10	230	6	2	9	251	323	171
Clark	253	218	476	57	57	10	230	6	2	9	251	558	277
Clay	290	264	554	93	93	15	575	57	23	27	1	393	198
Clinton	121	108	229	8	8	15	231	1	1	3	2	246	77
Crawford	135	106	241	21	21	70	111	11	1	4	2	117	43
Daviess	316	292	608	53	53	17	196	11	4	4	235	211	202
Dearborn	235	203	438	96	96	14	306	16	3	4	235	235	205
Decatur	220	199	419	30	30	6	131	9	3	8	3	154	154
Dekalb	79	65	144	11	11	14	144	18	3	8	2	175	96
Delaware	325	297	622	11	11	82	212	8	3	12	1	238	184
Dubois	247	222	469	31	31	3	111	15	6	5	8	136	123
Elkhart	243	236	479	167	167	39	130	76	16	26	13	251	153

TABLE No. X—Continued.

COUNTIES.	BIRTHS.			MARRIAGES.						DEATHS.				
	Sex.			Parentage.						Sex.				
	Male.	Female.	Total.	Both American.	Both Foreign.	Am. Fath.	Am. Moth.	For. Fath.	For. Moth.	Not Reported.	Total.	Male.	Female.	Total.
Bayette	112	124	236	208	28	17	8	8	8	8	88	48	41	89
Bloyd	288	279	567	487	67	67	56	8	27	1	141	111	111	262
Bouquain	120	137	257	225	32	6	2	2	2	64	133	43	39	85
Bouquin	127	119	246	190	34	34	4	12	12	13	145	66	30	104
Bulton	121	79	200	185	21	2	1	12	6	...	151	90	22	52
Gibson	256	241	497	451	9	9	9	13	7	2	223	99	112	211
Grant	201	183	384	333	8	4	3	3	...	4	313	42	49	91
Greene	291	294	585	548	4	...	...	1	...	...	224	91	101	192
Hamilton	376	315	691	652	9	9	1	1	24	...	276	112	102	214
Hancock	224	185	409	389	19	19	1	2	6	...	181	103	43	103
Harrison	219	226	445	386	17	17	1	20	16	2	175	102	86	198
Hendricks	300	257	557	525	10	10	2	20	20	2	197	112	100	212
Henry	356	299	655	612	8	8	1	8	24	1	203	111	94	205
Howard	283	283	566	533	8	8	1	2	...	...	215	79	79	198
Huntington	306	259	565	487	20	20	4	14	34	1	213	98	80	178
Jackson	256	265	521	434	34	34	3	6	40	...	192	100	82	182
Jasper	109	101	210	160	15	15	1	1	22	...	85	31	31	58
Jay	232	219	451	418	14	14	1	1	16	1	204	86	55	91
Jefferson	158	137	295	247	30	30	1	9	7	232	61	63	63	124
Jennings	163	153	316	286	10	10	...	15	4	...	137	65	59	124
Johnson	283	283	566	508	5	5	1	6	1	69	106	113	109	222
Knox	180	168	348	232	78	78	4	8	20	24	234	75	65	140
Kosciusko	205	185	390	300	9	9	1	8	70	12	268	54	58	112
Lagrange	108	91	199	184	4	4	...	1	8	1	106	32	24	56
Lake	135	125	260	139	75	75	17	17	6	11	123	61	57	98
Laporte	228	233	461	431	107	107	13	13	29	204	180	139	139	299
Lawrence	105	105	210	196	2	2	1	...	4	2	150	62	77	142
Madison	288	246	534	487	...	...	...	...	...	...	259	76	66	142
Marion	1,080	999	2,079	1,199	545	545	9	56	248	31	1,014	898	844	1,742
Marshall	148	151	299	218	35	35	10	6	28	235	235	45	35	80

Martin	133	269	247	5	8	1	1	120	2	4	4	1	181	47	65	110
Miami	268	477	329	21	3	5	114	258	20	3	9	2	292	89	59	148
Monroe	191	364	351	17	10	10	15	143	...	...	...	309	344	70	84	154
Montgomery	265	296	473	17	10	11	15	126	3	...	...	3	309	93	86	181
Morgan	143	306	284	6	2	12	18	49	5	3	...	...	132	55	63	118
Newton	94	123	19	19	2	12	18	188	7	4	...	...	64	29	26	58
Noble	166	316	266	36	...	2	9	188	7	4	...	...	203	53	42	96
Ohio	50	98	90	7	...	1	...	61	5	...	1	3	70	33	27	60
Orange	132	249	234	...	...	...	9	119	...	1	...	...	121	53	58	111
Owens	163	326	313	5	2	4	6	109	3	...	1	27	140	60	60	117
Park	161	319	295	5	...	3	10	94	5	...	1	70	170	51	52	103
Perry	...	...	...	...	...	...	...	...	...	...	...	177	177	...	...	...
Pike	...	277	247	6	1	2	16	175	...	5	8	...	186	33	31	64
Porter	117	...	...	...	...	...	...	...	...	...	...	198	198	...	...	...
Posey	331	683	582	51	20	19	5	241	6	4	6	...	257	142	149	291
Pulaski	73	154	133	15	...	3	1	119	12	4	4	...	137	19	16	35
Putnam	253	461	461	14	4	6	9	188	3	1	1	1	136	97	85	182
Randolph	438	802	757	19	2	2	14	309	1	...	1	...	311	115	116	231
Ripley	157	319	227	60	2	8	19	135	15	1	8	...	159	75	66	139
Rush	217	208	673	11	2	14	33	27	...	...	...	128	155	75	88	163
Scott	16	37	33	2	...	1	1	...	...	...	...	82	82	6	4	10
Shelby	208	459	338	...	2	4	108	259	3	...	...	...	282	83	81	164
Shenandoah	222	431	373	20	...	15	20	158	19	8	...	...	184	87	101	188
Spencer	22	50	44	3	...	2	...	94	5	...	...	...	139	24	15	39
Stark	88	169	164	4	...	...	...	97	4	1	...	...	104	43	43	73
Stephens	217	199	227	87	7	17	72	155	136	20	17	11	339	69	85	154
St Joseph	224	416	427	5	2	5	4	205	12	4	9	13	243	71	58	129
Sullivan	224	448	427	5	2	5	4	133	12	4	3	2	142	32	35	67
Switzerland	84	186	180	1	...	...	...	...	...	...	...	...	...	...	...	...
Tiptecanoe	310	594	396	157	12	10	22	238	53	19	26	4	340	133	114	247
Union	372	328	328	13	2	7	14	143	16	8	...	10	179	54	55	109
Vanderburgh	49	89	70	8	6	...	5	35	...	1	1	8	45	21	18	39
Vanderburg	549	1067	628	268	31	27	188	203	85	3	22	120	433	409	296	705
Vermillion	97	173	156	2	...	2	12	109	4	3	3	1	118	20	16	38
Vigo	522	440	962	714	10	53	69	437	23	6	28	...	494	281	261	542
Wabash	304	579	455	25	2	4	83	186	8	1	7	51	262	69	51	120
Warren	117	272	241	7	1	6	15	98	7	...	...	9	112	50	41	91
Warwick	263	472	283	35	4	19	126	184	2	3	10	2	201	89	62	151
Washington	159	312	259	6	4	4	25	193	2	1	3	19	219	86	70	156
Wayne	469	838	696	112	13	26	82	305	28	9	12	12	366	271	283	554
Wells	93	179	155	18	...	...	...	87	12	8	3	65	182	23	43	72
White	126	255	227	15	4	...	...	87	12	4	...	...	197	23	28	41
White	126	255	227	15	4	...	...	87	12	4	...	...	197	23	28	41
Whitley	236	452	403	19	2	16	7	134	5	1	10	...	150	65	84	149
Grand total	19,547	37,695	30,274	3,276	397	947	2,445	14,235	1,241	293	600	8,153	19,562	7,790	7,165	14,925

TABLE No. X.

BIRTHS, MARRIAGES AND DEATHS BY COUNTIES.

This exhibit is as full as it is possible to make it with the reports at hand. It is designed to present an epitome of information at a glance. We confidently hope next year to present a more satisfactory statistical showing.

COLOR.

Of the 19,562 marriages, 19,257 were white, and 305 colored; or 98.3 per cent. were white and 1.6 per cent. were colored. The entire colored population is 1.9 per cent. of the total in the State; yet the per cent. of marriages is only 1.6 per cent, showing that the colored population do not marry so largely as the whites. This may be accounted for by the fact that many young colored people have not so favorable an opportunity for supporting families as the whites have, and they are not so prone to marry.

NATIONALITY.

The following is a synopsis of the nationality of the contracting parties:

14,235, or 86.9 per cent. were both American.

1,241, or 7.5 per cent. were both foreign.

293, or 1.7 per cent. were of American father and foreign mother.

600, or 3.5 per cent. were of foreign father and American mother, and 3,193 were unreported.

As shown on page 269, the per cent. of foreign to American population in the State was 7.5 per cent. of the whole, males 4 per cent. and females 3.2 per cent. These figures show that more foreign males marry American females, than American males marry foreign females.

AGES.

220 of the bridegrooms and 4,035 of the brides were under twenty years of age. Six bridegrooms and one bride were over eighty. Fifty-two bridegrooms and two brides were between seventy and eighty.

The following is a table of the ages and the per cents. to each decade and quinquennial:

AGES.	MALES.	Per Cent. to Total.	FEMALES.	Per Cent. to Total.
Under twenty	220	1.4	4,035	25.9
Twenty to twenty-five	6,317	40.4	7,130	45.8
Twenty-five to thirty .	4,932	31.5	2,345	15.1
Thirty to thirty-five .	1,788	11.4	850	5.4
Thirty-five to forty . .	851	5.4	442	2.8
Forty to fifty	810	5.2	486	3.1
Fifty to sixty	432	2.7	184	1.2
Sixty to seventy . . .	201	1.3	50	.3
Seventy to eighty . .	52	.3	2	..
Eighty and over . . .	6	..	1	..

E. S. ELDER,

Secretary Indiana State Board of Health.

LIST OF PHYSICIANS AND ACCOUCHEURS.

Adams County.

Abbreviations—A., Accoucheur; E., Eclectic; R., Regular; B., Botanical; Secretary of Board in Caps.

This list is copied from the reports of county health officers, and any mistakes or errors belong to them.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Aspy, H. M.	Geneva	R	Harper, J. S.	Pleasant Mills	R
Boyer, J. S.	Decatur	R	JELLEFF, C. A.	Decatur	R
Bergman, N.	Berne	E	Kantz, Christina.	Berne	B
Coverdale, J. S.	Decatur	R	McMillan, W. W. P.	Decatur	R
Calderwood, George	Berne	R	Nenenschwander, D.	Berne	H
Calderwood, J. C.	Berne	R	Ralston, S. G.	Geneva	R
Darwin, T. T.	Decatur	R	Schroek, W. H.	Decatur	R
Deihl, Hannah	Decatur	A	Springer, P. A.	Berne	H
Freeman, B. R.	Decatur	R	Trout, D. G. M.	Decatur	R
Ford, Adam	Geneva	E	Trout, Wm.	Decatur	R
Goodwin, C. H.	Monroe	R	Wagoner, Mary	Monroe	A
Halloway, A. G.	Decatur	R	Williams, C. S.	Berne	R
Halloway, Mrs. M. L.	Decatur	A	Ward, J. B.	Geneva	R
Haughton, A.	Linn Grove	R	Walser, J. A.	Linn Grove	R
Hughes, A.	Monroe	R	Zimmerman, C. A.	Berne	R

Regulars, 22; Eclectics, 2; Botanic, 1; Homeopathic, 2; not stated, 3.

Allen County.

Adams, Horace E.	Woodburn	R	Hill, Rowland	Fort Wayne	R
Ayres, H. P.	Fort Wayne	R	Jones, J. H.	Fort Wayne	M
Bartley, Michael	Fort Wayne	P	Jackson, T. W.	Perry Township	R
Brown, O. V.	Cedarville	M	Knobe, R. S.	New Haven	R
Bilderback, J. W.	Harlan	R	Ketchum, Geo.	Hunterton	R
Brooks, Wm. H.	Fort Wayne	R	Leatherman, J. H.	Fort Wayne	H
Bowen, G. W.	Fort Wayne	H	Laubach, A. J.	Fort Wayne	H
Brown, Alfred H.	Churubusco	R	Leiter, Chas. A.	Monroeville	H
Buchman, A. P.	Fort Wayne	R	Leonard, P. M.	Fort Wayne	H
Bruebach, Geo. T.	Fort Wayne	R	Lewis, J. V.	Fort Wayne	H
Cary, D. B.	Academy	R	Metcalf, Samuel	Fort Wayne	R
Connely, Wm. A.	Monroeville	R	Myers, I. N.	Maples	R
Cosgrove, Z. K.	Harlan	R	Mayer, C. F.	Fort Wayne	R
Chambers, Jno. D.	Fort Wayne	R	Martz, Christine	Fort Wayne	A
De Dier, Lucine	Zulu	R	McCaskey, G. W.	Fort Wayne	R
De Vibbis, Allen	Hoagland	R	McCullough, T. P.	Fort Wayne	R
Dryer, Chas. R.	Fort Wayne	R	McHenry, J. D.	Maples	R
DILLS, THOS. J.	Fort Wayne	R	McDowell, H. C.	Arcola	R
Dinnem, Jas. W.	Fort Wayne	R	Myers, W. H.	Fort Wayne	R
Engle, A.	Monroeville	E	McCormick, T. H.	Poe	R
Egalf, H. M.	Arcola	R	McCullough, H.	Fort Wayne	R
Engleman, C. G.	Dixon	R	McIntosh, G. B.	Fort Wayne	R
Ferguson, W. T.	Fort Wayne	R	McCausland, —	Fort Wayne	R
Fiser, Chas. M.	Fort Wayne	R	Nushang, C. F.	Fort Wayne	R
Greenawalt, Geo. L.	Fort Wayne	R	Neeley, H. T.	Zanesville	R
Gregg, Jas. S.	Fort Wayne	R	Null, L. S.	New Haven	R
Gordon, Chas. W.	Wallen	R	Nederhiser, J. R.	Fort Wayne	R
Gunetree, J. W.	Harlan	R	Omo, Joseph	Harlan	R
Greenwell, F.	Hunterton	R	Payton, Lewis	Fort Wayne	R
Green, Mrs. M. F.	Fort Wayne	H	Porter, M. F.	Fort Wayne	R
Greenwald, Max.	Leo	E	Poyneer, Geo. W.	Fort Wayne	R
Heaton, Chas. E.	Fort Wayne	R	Proegler, Carl	Fort Wayne	R
Hetrick, Jacob	Fort Wayne	R	Prior, H. W.	Fort Wayne	R
Hewchling, Theodore	Fort Wayne	R	Pearson, Mrs. M. A.	Fort Wayne	A
Harris, Miss E. F.	Fort Wayne	H	Rosenthal, I. M.	Fort Wayne	R
Harris, L. P.	Fort Wayne	H	Ross, Geo. A.	Fort Wayne	H

Allen County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Past Office.</i>	<i>School</i>
Rauch, A. J.	Fort Wayne	R	Sturgis, K. T.	Hunterton	R
Ruhl, Wm. D.	Sheldon	R	Shellabarger, E. B.	New Haven	R
Reed, E. L.	Kelseyville	E	Thayer, F. M.	Fort Wayne	E
Simpson, W. D.	Fort Wayne	R	Tresler, Leshner	Fort Wayne	R
Schutt, Lewis C.	Fort Wayne	R	Tower, S. F.	Fort Wayne	E
Smith, J. L.	Hoagland	E	Van Buskirk, A. E.	Fort Wayne	E
Shutt, J. M.	Harlan	E	Wilder, E. P. B.	Monroeville	E
Swift, C. F.	Maysville	R	Wheelock, Jr., E. G.	Leo	E
Sutton, Harvey	Wallen	R	Worley, G. N.	Poe	E
Sweringen, H. V.	Fort Wayne	R	Woodworth, B. S.	Fort Wayne	E
Stemen, C. B.	Fort Wayne	R	Williamson, M. F.	New Haven	E
Stevens, S. P.	Fort Wayne	E	Wherry, W. P.	Fort Wayne	E
Smith, C. S.	Fort Wayne	R	Wheelock, K. K.	Fort Wayne	E
Smith, B. N.	Fort Wayne	R	Worden, J. W.	Fort Wayne	E
Seaton, Jno	Fort Wayne	R	Younge, J. W.	Fort Wayne	E
Sledd, S. D.	Nine Mile	R	Yagerlanner, Jno	Nine Mile	E

Regular, 65; Homeopathic, 9; Eclectic, 19; Physio-Med., 3; not reported, 7.

Bartholomew County.

ARWINE, J. S.	Columbus	R	Lopp, W. H.	Columbus	R
Armer, D. S.	Columbus	R	Linton, S. M.	Columbus	R
Biddinger, W. T.	Waynesburg	E	Lawrence, W. M.	Jonesville	E
Bland, M. E.	Waynesburg	R	Morris, S. H.	Jonesville	R
Barrett, S. J.	Waynesburg	R	Maring, J. N.	Columbus	R
Boyington, C. H.	Hope	R	McLeod, A. J.	Burnsville	R
Brehm, Mrs. C.	Waynesburg	A	Minnett, O. H.	Jonesville	R
Banker, W. T.	Waynesburg	R	Newton, W. T.	Hope	R
Banker, A. J.	Waynesburg	R	Norton, F. D.	Petersville	R
Burns, R.	Waymansville	A	Owen, H. C.	Columbus	R
Banks, W. H.	Waymansville	R	Platt, D. E.	Taylorsville	R
Border, Mrs. E.	Columbus	A	Richards, F. B.	Taylorsville	R
Butler, C. H.	Clifford	R	Rooke, R. H.	Columbus	R
Beck, W. H.	Hartsville	R	Reamy, G. O.	Hartsville	R
Book, Mrs. C. W.	Jonesville	A	Rice, A.	Columbus	H
Cosby, G. W.	Burnsville	R	Riley, J. Joseph	St. Louis Crossing	R
Cooperider, J.	Taylorsville	R	Richman, S. P.	Columbus	R
Clark, I. S.	Columbus	R	Repp, Mrs. F. A.	Taylorsville	A
Craig, C. M.	Taylorsville	R	Regnes, E. G.	Hope	R
Davis, J. H.	Azalia	R	Sater, J. N.	Clifford	R
Elrod, M. N.	Hartsville	R	Shane, T. A.	Columbus	H
Falk, F.	Columbus	R	Smalley, J. K.	Newbern	R
Fogle, E. T.	Hartsville	E	Summer, J. M.	Columbus	R
Fitzpatrick, B.	Hope	R	Stapp, S.	Hope	R
Hawley, K. D.	Elizabethtown	R	Stewart, F. A.	Taylorsville	R
Hillgoss, E. W. S.	Hope	R	Thompson, D. A.	Elizabethtown	R
Hirshburg, Mrs. A.	Columbus	A	Voris, S. M.	Columbus	R
Howe, O. E.	Taylorsville	R	Wright, J. F.	Columbus	R
Hart, M. M.	Columbus	P	Winterrowd, N. S.	Hope	E
Hudson, J. B.	Columbus	E	West, E. H.	Hartsville	E
Kincaid, J.	Walesboro	E	Weisenberg, J.	Waymansville	R
Kent, C. V.	Hope	R			

Regular, 48; Homeopathic, 2; Eclectic, 5; Botanical, 1; not reported, 7.

Benton County.

Bristow, J.	Templeton	R	McConnell, H. C.	Oxford	E
Beard, J. M. G.	Ambia	R	Pearson, M. L.	Fowler	R
Boice, B. R.	Earl Park	R	Purdy, A. J.	Fowler	R
Boice, A. C.	Earl Park	R	Perre, G. C.	Fowler	B
Buray, James	Raub	R	Pierce, Wm. P.	Hoopston, Ill.	R
Christley, J. B.	Boswell	R	Rodman, J. M.	Fowler	R
Evans, T. T.	Ambia	R	Roberts, Samuel R.	Oxford	R
Fall, C. W.	Templeton	R	Simpkins, J. C.	Boswell	R
Greene, J. W.	Boswell	R	Thompson, John K.	Otterbein	R
Gray, James A.	Otterbein	R	Wells, A. W.	Oxford	R
Hatch, Jethero	Kentland, N'ton Co.	R	Whitcomb, J. H.	Boswell	R
Kolb, Jonathan	Oxford	R	Wilson, W. R.	Hoopston, Ill.	R
MAVITY, J. S.	Fowler	R			

Regular, 23; Eclectic, 1; Botanic, 1.

Blackford County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Clouser, N. D.	Hartford City.	R	Mason, C. R.	Hartford City.	R
DAVISSON, H. C.	Hartford City.	R	McFarland, J. E.	Mill Grove.	E
Drayer, Peter	Hartford City.	R	Sage, Jno. W.	Hartford City.	R
Goodin, S. A.	Montpelier.	R	Shull, C. Q.	Montpelier.	R
Hardin, A.	Hartford City.	H	Thompson, R.	Hartford City.	H
Harrold, J. R.	Roll.	R	Turner, Henry.	Mill Grove.	H
Hammon, E. W.	Montpelier.	R	Wheeler, W. H.	Hartford City.	H
Keith, E.	Hagerstown.	E	Wilt, W. W.	Montpelier.	R
Kitzmiller, K. E.	Hartford City.	E			
Landon, L. C.	Priam.	R			

Regular, 12; Homeopathic, 5; Eclectic, 2.

Boone County.

Alford, J. S.	Zionsville.	R	Hawk, J. R.	Thorntown.	E
Bounnell, T. A.	New Brunswick.	R	HAMILTON, J. A.	Advance.	R
Bennington, A. M.	Lebanon.	R	Jones, E. R.	Lebanon.	R
Brown, R. A.	Zionsville.	R	Jordon, Thomas W.	Whitelick.	R
Ball, J. P.	Lebanon.	E	Kellogg, N. P.	Lebanon.	H
Brown, E. L.	Thorntown.	E	Lane, Thomas H.	Lebanon.	R
Brindle, B. F.	Kimberlin.	P-M	Leach, J. T.	New Brunswick.	R
Baker, J. J.	Big Spring.	P-M	Monnett, S. C.	Northfield, rem'ed.	R
Burke, George L.	Jamestown.	R	Miller, A. O.	Lebanon.	R
Bounnell, M. A.	Lebanon.	R	McGee, J. A.	Zionsville.	P-M
Banta, Samuel J.	Jamestown.	R	Martin, Simeon.	Whitelick.	R
Banta, J. Q.	Jamestown.	R	McIntire, Mrs. M. M.	Lebanon.	A
Crowley, J. B.	Lebanon, removed.	R	Nickey, A. S.	Elizaville.	R
Cumyer, W. F.	Thorntown.	E	O'Rear, C. D.	Jamestown.	R
Cotton, H. T.	Zionsville.	R	O'Rear, J. H.	Jamestown.	R
Crafton, W. F.	Lebanon.	R	PORTER, A. G.	Lebanon.	R
Crafton, O. T.	Cason, removed.	R	Purdy, J. C.	Kimberlin.	P-M
Cain, John M.	Rosston.	R	Parr, W. P.	Lebanon, removed.	R
Crosby, N.	Zionsville.	N-S	Porter, John R.	Lebanon.	R
Clarke, A. J.	Elizaville.	R	Rose, M. H.	Thorntown.	R
Coons, H. N.	Lebanon.	H	Reagan, Jesse.	Reese's Mills.	R
Dickerson, George.	Northfield.	E	Ross, J. T.	Lebanon.	R
Davis, D. B.	Thorntown.	R	Smith, C. H.	Lebanon.	R
Duzan, George N.	Zionsville.	R	Scull, D. C.	Lebanon.	R
Dunnington, A.	Thorntown.	R	Shulse, W. H.	Lebanon.	R
Everett, W. E.	Whitelick.	R	Simms, John F.	Thorntown.	R
Finch, A. M.	Jamestown.	R	Steelsmith, J. M.	Elizaville.	R
Garnes, J. D.	Royalton.	R	Stephenson, W. J.	Kimberlin.	P-M
Garrison, J. L. F.	Lebanon.	R	Trowbridge, Reese.	Lebanon.	R
Holmes, H. P.	Lebanon, removed.	H	Utter, Joseph A.	Thorntown.	H
Hardy, J. S.	Whitestown.	R	Williamson, R. A.	Lebanon.	R
Heady, W. S.	Milledgeville, rem.	R	Ware, W. H.	Cason.	R
Harrison, T. H.	Lebanon.	R	Walker, D. R.	Reese's Mills.	R
Hamilton, J. A.	Advance.	R			

Regular, 51; Eclectic, 5; Physio-Medico, 5; Homeopathic, 4; not stated, 2.

Brown County.

Beaty, Wm. H.	Needmore.	R	Merryman, Sarah J.	Ramelton.	A
Browning, Nathan.	Story P. O.	R	Ralph, Alfred J.	Nashville.	R
Banks, Wm. H.	Waymansville.	R	Roddy, W. H.	Mt. Moriah.	R
Duncan, Marion A.	New Bellville.	R	Ritchards, Joannah.	Ritchards P. O.	A
Fleener, Joseph N.	Needmore.	E	SPENCER, A. C.	Bean Blossom.	R
Griffitt, Arnold S.	Story P. O.	R	Smith, Marietta J.	Bloomington.	A
Genollin, John F.	Nashville.	R	Taggart, C. F.	Nashville.	R
Holder, R. E.	New Bellville.	R	Ward, James G.	Bean Blossom.	R
Hatchet, Louisa.	Schooner P. O.	A	Wilson, Samuel C.	Pikes Peak.	H
Judah, M. F.	Bloomington.	E	Warring, Thos. E.	Nashville.	E
Leonard, J. H.	Elksinville.	R	Warring, John M.	Smithville.	E
Moser, James P.	Spearsville.	R	Wright, A. F.	Bean Blossom.	R
Mossop, Stephen.	Schooner P. O.	P-M	Whitehorn, Amy.	Pikes Peak.	A

Regular, 15; Physio-Medical, 1; Homeopathic, 1; Eclectic, 4; N. R., 5.

Carroll County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Angell, Chas. E.	Delphi	R	Moore, A. G.	Delphi	R
Angell, Charles	Pittsburgh	R	McCleary, D. A.	Deer Creek	R
Armstrong, F. G.	Camden	R	Noland, S. T.	Deer Creek	R
Anderson, Samuel	Burlington	R	Newell, J. W.	Rockfield	R
Armstrong, E. W.	Camden	R	Nice, P. E.	Deer Creek	U
Bradfield, B. D.	Deer Creek	R	Payton, W. B.	Carroll	U
Beck, E.	Delphi	R	Parish, H. D.	Flora	U
Blanchard, J. R.	Delphi	R	Robinson, F. M.	Delphi	H
Bullard, W. F.	Plymouth	R	Robinson, L. D.	Delphi	H
Chittick, Charles	Burlington	R	Scholl, C. E.	Rockfield	R
Cochran, I. N.	Delphi	R	Shultz, F. A.	Delphi	E
Calvert, I. H.	Northern Prison Physician	R	Shultz, J. J.	Delphi	E
Cromer, J. R.	Flora	R	Smith, W.	Delphi	R
Camp, Charles	Camden	E	Sharer, W. F.	Rockfield	R
Doane, Geo. M.	Burlington	U	Stuart, A. L.	Lockport	R
Greer, J. G.	Patton	P-M	Snyder, B. F.	Lockport	R
Herron, R. D.	Cutler	R	Stewart, J. W.	Burrows	R
Jackson, C. P.	Bronghurst	R	Souder, C. L.	Burrows	R
Johnson, C. E.	Flora	H	Schoales, W. S.	Deer Creek	U
Kelsey, J. S.	Cutler	R	Trobaugh, W. A.	Cutler	U
Kennard, J. L.	Yeoman	R	Tidrick, R. R.	Bronghurst	U
Loop, Wm. M.	Deer Creek	R	Wirt, J. H.	Wirt	E
Lovell, Charles	Burrows	R	Wilson, R. I.	Lockport	R
Lyons, F. P.	Carroll	R	WALKER, E.	Delphi	E
McFattridge, L. C.	Carroll	R	Wright, J. A.	Burlington	R
Morrow, J. L.	Delphi	R	Viney, D. M.	Cutler	R
			Youcey, W. P.	Camden	E

Regular, 36; Homeopathic, 3; Eclectic, 6; Physio-Medico, 1; not stated, 7.

Cass County.

Adrain, J. A.	Logansport	R	Loop, Z. U.	Galveston	R
Abbott, Abner	Logansport	E	Million, David	Royal Center	E
Banta, H. J.	Logansport	R	Myers, A.	Logansport	E
Ballard, J. W.	Logansport	R	McCrea T. P.	Logansport	E
Baker, I. J.	Logansport	E	Parrish, Dr.	Clymers	E
Barnett, D. C.	Young America	R	Parks, C. D.	Young America	E
Baldwin, T.	Galveston	R	Perkins, Sarah	Logansport	A
Bowers, D. M.	Logansport	N S	Petri, M.	Logansport	A
Buchanan, A. W.	Metea	R	Powell, B. B.	Logansport	E
Brown, Dr.	Young America	E	Pickett, J. J.	Dow	E
Bell, Wm. H.	Logansport	E	Powell, J. Z.	Logansport	R
Burton, J. A.	Royal Center	E	Price, C. A.	Logansport	R
Busjahn, F. A.	Logansport	R	Pickett, Cyrus	Adamsboro	E
Cady, N. W.	Logansport	R	Quick, L. L.	New Waverly	R
Carpenter, L. W.	Logansport	H	Quick, R. H.	New Waverly	R
Coleman, A.	Logansport	R	Rolshausen, E. V.	Logansport	R
Conrad Nancy	Twelve Mile	A	Stevens, B. C.	Logansport	R
Clevenger, B. S.	Logansport	E	Strain, W. A.	Logansport	R
Chord, A. M.	Logansport	E	Smith, J. T.	Logansport	R
Fansler, D. N.	Logansport	R	Shultz, J. H.	Logansport	E
Faber, R.	Logansport	R	Sterrett, J. E.	Logansport	R
Fitch, G. N.	Logansport	R	Skinner, H. D.	Twelve Mile	R
Fouts, D. N.	Royal Center	E	Shultz, J. B.	Logansport	E
Geer, E.	Curveton	E	Simmons, L. A.	Galveston	R
Hoover, E. M.	Royal Center	R	Smith, J. S.	Galveston	E
Hattery, H. D.	Logansport	R	Smith, J. T.	Logansport	R
Herrman, John	Logansport	R	Talbott, J. W.	Logansport	R
IRONS, JOHN W.	Logansport	H	Talbott, J. H.	Logansport	R
Jordan, M. A.	Logansport	E	Taylor, Caroline	Logansport	E
Justice, J. M.	Logansport	R	Thomas, James	Royal Center	R
Landrey, S. F.	Galveston	R	Thornburg, B.	Galveston	R
Lester, H. C.	Logansport	R	Waite, J. C.	Adamsboro	E
Loop, J. C.	Galveston	R	Watkins, M. S.	Lincoln	E
Lybrook, W. E.	Young America	R	Wood, Wm. H.	Logansport	E
Lynas, J. B.	Logansport	B	Wild, John	Logansport	E

Regular, 39; Eclectic, 24; Homeopathic, 2; Botanic, 1; not stated, 4.

Clark County.

Names.	Post Office.	School	Names.	Post Office.	School
Allhands, David S.	New Washington.	E	McClure, Jesse D. (as-		
Adair, Samuel L.	New Washington.	R	tant physician State		
Beckwith, Love W.	Jeffersonville.	R	Prison South.)	Jeffersonville.	R
Bryant, Allen.	Jeffersonville.	N S	McCaslin, Charles H.	Bethlehem.	N S
Bruner, Emory W.	Jeffersonville.	R	McGlenn, Wm. P.	Henryville.	R
Carr, Francis M.	Oregon.	R	McKinney, Martin V.	Jeffersonville.	R
Covert, John.	Oregon.	R	McNeil, Alexander.	Jeffersonville.	H
Covert, George M.	Sellersburg.	R	Oldham, James E.	Charleston.	R
Charles, John N.	New Providence.	R	Peyton, David O.	Charleston.	R
Coombs, David H.	Charlestown.	R	Poff, Mrs. Lena.	St. Joseph's Hill.	A
Davis, William H.	Bethlehem.	N S	Poinexter, John.	Henryville.	R
Douglas, Mrs. Salena.	Henryville.	A	Pinney, Mrs. Ellen.	Jeffersonville.	A
Fritzland, Thomas.	Bethlehem.	R	Reynolds, James M.	Memphis.	R
Ferguson, Henry H.	Henryville.	R	Ruddell, Isaac N.	Jeffersonville.	R
Field, Nathaniel.	Jeffersonville.	R	Russell, James R.	Nobb's Station.	R
Field, Davis L.	Jeffersonville.	R	Sanderson, Thomas.	Charleston.	R
Fouts, William D.	Jeffersonville.	R	Scull, Benjamin F.	Bethlehem.	N S
Fouts, William Jr.	Jeffersonville.	R	Sheets, Wm. H.	Jeffersonville.	R
GRAHAM, THOS A.	Jeffersonville.	R	Sherrod, William F.		
Haymaker, Geo. W.	Charlestown.	R	(physician State		
Hay, Campbell.	Charlestown.	R	Prison South.)	Jeffersonville.	R
Haus, Aug. P.	Sellersburg.	E	Schotmiller, Mrs. Ma-		
Holland, Horatio N.	Jeffersonville.	H	ry.	Bennettsville.	A
Hinton, Mrs. Kittie.	Jeffersonville.	A	Spurgeon, Frank.	Muddy Fork P. O.	R
Hertzsch, Mrs. C.	Jeffersonville.	A	Stalker, Benjamin E.	New Providence.	R
Hercker, Ferdinand.	Henryville.	N S	Scholl, Mrs. Amelia.	Memphis.	R
Henning, Robert.	Jeffersonville.	R	Taggart, John F.	Solon.	R
Hosee, Mrs. Mary.	Jeffersonville.	A	Taggart, William.	Solon.	R
Jones, Cadwallader.	New Washington.	R	Taggart, Josia.	Solon.	R
Keeley, James M.	Jeffersonville.	R	Taggart, Samuel O.	Jeffersonville.	R
Lecoma, George W.	Jeffersonville.	R	Wells, Francis M.	Sellersburg.	R
Loomis, John.	Jeffersonville.	H	Williams, Lewis L.	Utica.	R
McBride, Chas. R.	Jeffersonville.	R	Wisner, William E.	Henryville.	R
McCoy, William N.	Jeffersonville.	R	Work, William F.	Charleston.	E
McClure, David.	Jeffersonville.	R	Zurner, Joseph.	Jeffersonville.	R
McClure, Sidney C.	Jeffersonville.	R			

Regulars, 47; Eclectic, 3; Homeopathic, 3; not stated, 13.

Clay County.

Allen, H. P.	Bowling Green.	R	Hitchings, H.	Knightsville.	A
Allen, Chas. T.	Bowling Green.	R	James Oliver.	Cory.	R
Bartholmew, N. B.	Poland.	R	Larkins, E. L.	Staunton.	R
Black, S. D.	Brazil.	R	Leachman, J. H.	Center Point.	R
Byers, L. S.	Staunton.	R	Modisitt, J. A.	Cory.	R
Berne, S. P.	Clay City.	R	Morton, W. C. P.	Cardonia.	R
Brouillette, S. L.	Clay City.	R	Morgan, B. B.	Brazil.	R
Brown, W. B.	Mart.	R	Morton, R.	Cardonia.	A
Black, Robt. C.	Clay City.	R	McCollough, F. B.	Staunton.	R
Briley, A.	Coffee P. O.	R	Pell, G. M.	Carbon.	R
Brook, L. G.	Carbon.	R	Price, J. M.	Brazil.	R
Culbertson, W. L.	Brazil.	R	Palmer, Labon.	Knightsville.	R
Chamberlin, W. L.	Poland.	E	Payne, J. H.	Turner.	R
Cushman, D. W.	Cloverland.	R	Rundall, A. E.	Center Point.	R
Davis, H. A.	Hoosierville.	R	Ray, Allen.	Bowling Green.	R
Dillman, M. L.	Staunton.	R	Stone, W. R.	Poland.	R
Elliot, Thos. A.	Poland.	R	Smith, J. F.	Brazil.	E
Finley, G. W.	Harmony.	R	Siddens, J. A.	Harmony.	R
Freed, M. A.	Clay City.	R	Sanders, Barbara.	Hoosierville.	A
Grimes, W. T.	Center Point.	R	Sner, F. M.	Asherville.	R
Giffort, J. C.	Brazil.	R	SPELLBERRING, B. F.	Knightsville.	R
Glasco, T. A.	Brazil.	R	Talbott, E. F.	Bowling Green.	R
Gant, R.	Saline City.	R	Tulley, A. F.	Brazil.	R
Gertmeyer, J.	Staunton.	R	Thornton, F. G.	Knightsville.	R
Griffith, L. C.	Saline City.	R	Vansandt, W. H.	Carbon.	R
Green, Thos. C.	Ashboro.	R	Wolfe, C. H.	Clay City.	R
Gifford, W. H.	Brazil.	R	Williams, John.	Bowling Green.	R
Holmes, W. B.	Center Point.	R	Zook,	Saline City.	R
Hawkins, W. B.	Brazil.	R	Elliot, D. O.	Knightsville.	R
Hansell, David.	Lena.	R	Dickson,	Knightsville.	R
Holmes, B. F.	Asherville.	R	Thomas, D. O.	Knightsville.	R
Hale, L. A.	Mart.	E			

Regular, 52; Eclectic, 3; Accouchers, 3; not stated, 4.

Clinton County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Abston, J. M.	Michigantown	R	Hunsinger, Eli	Kirklin	R
Adams, Jas. M.	Frankfort	R	Koons, M. T.	Mulberry	R
Andrus, G. D.	Forrest	R	Loftin, John	Frankfort	R
Ballenger, J. A.	Richard's Mills	R	Lewis, A. J.	Frankfort	R
Barnes, J. A.	Michigantown	R	Martin, M. L.	Forrest	R
Brown, Geo. W.	Frankfort	R	Matler, Theo. S.	Mulberry	R
Bogan, E. W.	Kirklin	R	Moore, W. W.	Middlefork	R
Bowers, Valentine	Michigantown	R	Myers, John M.	Kirklin	R
Cable, A. H.	Frankfort	R	Millburn, Robert	Colfax	R
Campbell, M. R.	Middlefork	R	Miller, Elijah	Sedalia	E
Canfield, M. S.	Frankfort	E	McMurray, John S.	Frankfort	R
Coon, H. J.	Colfax	R	Millburn, J. E.	Colfax	R
Cooper, W. E.	Richard's Mills	R	McCorkle, T. H.	Kirklin	U
Cooper, W. T.	Seircleville	R	McNutt, J. S.	Jefferson	R
Cripe, D. E.	Frankfort	E	Morrison, A. J.	Middlefork	R
Cox, Timothy B.	Frankfort	R	McGuire, W. H.	Frankfort	E
Cook, M. D.	Hillisburgh	R	Parker, Joseph	Colfax	R
Dearth, M. H.	Hillisburgh	R	PALMER, R. F.	Frankfort	R
Deaner, John W.	Hillisburgh	R	Parks, S. H.	Manson	U
Douglass, J. W.	Michigantown	R	Randall, W. B.	Hillisburgh	R
Douglass, Samuel	Killmore	R	Seawright, S. P.	Moran	R
Dunn, W. P.	Frankfort	R	Saylor, A. J.	Rossville	R
Earhart, J. S.	Mulberry	R	Strange, William	Frankfort	R
Fall, W. D.	Kirklin	R	Shaw, James W.	Rossville	R
Fisher, J. M. J.	Rossville	R	Smith, W. G.	Seircleville	R
Fisher, Samuel B.	Rossville	E	Schwinn, E. E.	Kirklin	E
Gard, Oliver	Frankfort	R	Sigler, J. N.	Sedalia	R
Gentry, W. A.	Forrest	R	Thorp, Levi	Boyleston	R
Gentry, James M.	Frankfort	R	Vale, H. M.	Colfax	R
Haggard, J. A.	Sedalia	R	Wade, T. H.	Mulberry	R
Hornaday, W. C.	Forrest	R	Wise, J. N.	Frankfort	H
Holmes, H. D.	Richard's Mills	R	Wise, J. V.	Frankfort	H
Holmes, T. P.	Richard's Mills	R	Wilson, M. W.	Rossville	E
Holmes, J. H.	Manson	R	Young, M. V.	Geetingsville	R
Holmes, A. T.	Frankfort	R	Yousardt, A. M.	Mulberry	R

Regular, 59; Eclectic, 7; Homeopathic, 2; not stated, 2.

Crawford County.

Anderson, J. W.	Milltown	R	Holland, William	Milltown	R
Anderson, T.	Birdseye	A	Kelso, J. S. B.	Leavenworth	R
Bird, Elizabeth	Leavenworth	A	Kines, Daniel	Leavenworth	B
BAYLOR, G. W.	Milltown	R	King, N. W.	Downhill	R
Bird, W. C.	English	R	Knight, J. B.	Mt. Prospect	R
Bobbitt, J. H.	Wickliff	R	Murphy, L. H.	Alton	R
Brown, G. W. L.	Doolittle Mill	R	Mitchell, Robert	Marengo	R
Brown, S. L.	Miffin	R	Merrillus, M. M.	Beechwood	R
Bullington, W. H.	Grantsburg	R	Morgan, Margaret	Downhill	R
Butler, W. C.	Grantsburg	R	Morgan, J. M.	Wickliff	A
Bynn, S.	Marengo	R	McMahan, M. E.	Mt. Prospect	A
Chambers, S. B.	Leavenworth	R	Osman, Daniel	Leavenworth	U
Courtney, Thomas	Downhill	R	Peckenpaugh, Susan	Leavenworth	A
Daniel, William	Marengo	R	Pitman, C. S.	Wickliff	R
Dexter, A.	West Fork	R	Robinson, Emily	Grantsburg	A
Elliott, E. J.	Leavenworth	A	Stewart, L. B.	Marengo	H
Gobble, R.	Downhill	R	Sitser, H. H.	Leavenworth	R
Gobble, F. R.	Grantsburg	R	Sturm, Lida	Downhill	A
Gibbs, J. H.	Milltown	R	Shaw, Bathsheba	Magnolia	A
Gibson, Margaret	West Fork	A	Tucker, Annetta	Wickliff	A
Gray, Salina	Fredonia	A	Tarr, John W.	Birdseye	R
Hutchinson, R. H.	Wickliff	R	Vandiver, Joel	Mt. Prospect	R
Hammond, H. C.	English	R	Woodford, Elizabeth	Leavenworth	A
Hough, M. A.	Marengo	A	Walls, John W.	Doolittle Mill	A

Regular, 31; Homeopathic, 1; Botanic, 1; not stated, 15.

Daviess County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Achor, J. M.	Cornettsville		Millis, Edward D.	Plainville	
Anderson, F. A.	Washington	R	Parks, James F.	Washington	R
Barton, G. G.	Washington	R	Plummer, T. K.	Washington	A
Burris, Levi	Alfordsville	E	Plummer, Katie	Washington	A
Bigham, A. W.	Montgomery	R	Perkins, Sarah	Cornettsville	A
Calloway, Nancy	Washington	A	Peck, S. W.	Washington	R
Clark, Ira W.	Epsom	E	Robinson, G. M.	Cannelburg	
Clark, Jacob W.	Glendale	R	Ray, Thomas G.	Epsom	
Chowning, Harriet	Washington	A	Ragsdale, Mark H.	Glendale	
Culmer, S. C.	Odon		Scanlon, Michael	Washington	
Clayton, S.	Montgomery		Sears, Barton	Owl Prairie	
Dearwine, John	Raglesville		SCUDDER, CHAS. P.	Washington	R
Dagley, Elias	Washington		Scudder, Charles	Washington	R
Evans, W. L.	Loogootee	R	Strouse, W. H. H.	Washington	H
Eads, L. G.	Washington		Smith, D. J.	Odon	R
Fitzgibbon, John	Washington	R	Standley, W. H.	Epsom	
Gers, Henry	Washington	R	Scudder, J. A.	Washington	R
Hildebrand, Maria	Washington	A	Strauss, Magdalene	Cannelburg	A
Hanna, F. M.	Washington	R	Sears, F. M.	Owl Prairie	R
Hobbs, W. P.	Raglesville		Sabin, A. L.	Washington	
Hosler, Lovey, (Col'd)	Washington	A	Taylor, Harvey	Raglesville	R
Isham, Elizabeth	Glendale	A	Trueblood, J. C.	Raglesville	
Jones, W. S.	Cumbuck		Williford, W. C.	Montgomery	R
Jones, W. H.	Cornettsville	E	Walker, G. W.	Cannelburg	
Killion, John W.	Cornettsville		Washington, S. A. (Col.)	Washington	A
Lane, A. K.	Odon	R	Ward, Lina	Washington	A
McKittrick, O. H.	Planesville	R	Walls, W. B.	Alfordsville	E
Moore, Jackson S.	Washington	R	Williford, George	Glendale	R
Michelle, John S.	Alfordsville	R			

Regular, 22; Homeopathic, 1; Eclectic, 3; not stated, 31.

Dearborn County.

Bond, Richard C.	Aurora	R	Lord, Thomas J.	Dillsborough	E
Bond, Mare L.	Aurora	R	Lamb, James	Aurora	R
Bond, Edwin P.	Lawrenceburgh	R	Liddle, John R.	Bright	R
Barkley, Marshall J.	Farmers' Retreat	R	Miller, Charles B.	Lawrenceburgh	R
Bowers, Andrew J.	Moore's Hill	R	Minich, Barbara	Lawrenceburgh	R
Becker, Frederick W.	Aurora	H	Miller, A. G.	Cold Springs	R
Collins, L. J.	Guilford	R	Rectanus, Frederick	Aurora	R
Collins, S. H.	Lawrenceburgh	R	Ratcliff, E. M.	New Alsace	R
Craig, T. E.	Manchester	R	Rosser, David	Moore's Hill	R
Chamberlain, S. B.	Sparta	R	Sales, Fleetwood H.	Dillsborough	R
Daughters, A. P.	Moore's Hill	R	Sales, James H.	Dillsborough	R
Dunn, W. H.	Wilmington	R	Sutton, Horley H.	Aurora	R
Evans, O. C.	Lawrenceburgh	H	Sutton, George	Aurora	R
Fermier, Pierre	Weisburg	R	Swales, W. H., Jr.	Logan	R
Gatch, James D.	Lawrenceburgh	R	Swales, W. H., Sr.	Logan	R
Green, John P.	Lawrenceburgh	R	Smith, Curtis T.	Aurora	R
Harding, Myron H.	Lawrenceburgh	R	Smith, Edwin	Aurora	H
Hurryman, S. B.	Lawrenceburgh	R	Schrader, Judith	Lawrenceburgh	A
Haines, A. B.	Aurora	R	TERRILL, W. M. M.	Lawrenceburgh	R
Heaton, C.	Moore's Hill	R	Treon, Frederick	Aurora	R
Hubbard, George M.	Dillsborough	R	Thomas, M. L.	Harrison, Ohio	R
Henry, W. C.	Aurora	R	Vincent, Henry C.	Guilford	R
Greer, L. H.	Aurora	R	Weaver, Samuel M.	Dillsborough	R
Kyle, Thomas M.	Wright's Corner	R	Walter, Carl G.	Lawrenceburgh	R

Regulars, 43; Homeopathic, 3; Eclectic, 1; not stated, 1.

Decatur County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Alexander, J. H.	Clifty	R	Howard, F. M.	St. Paul	R
Armstrong, A.	Adams	R	Johnson, Thomas	Greensburg	R
Ballard, D. J.	St. Paul	R	Maguire, Samuel	Greensburg	H
Beal, C. M.	Clarksburg	R	McConnell, W.	New Pennington	H
Bracken, Wm.	Greensburg	R	Miller, T. E. F.	Clifty	H
Bracken, James	Greensburg	R	Mobley, M. B.	Wintersville	N K
Bobbitt, John L.	Greensburg	R	Nadermann, Mrs. A.	Millhausen	A
Bunker, L. C.	Greensburg	R	Parker, J. W.	Adams	N K
Burrough, J. P.	Westport	R	Pennington, Eli	New Point	N K
Cain, C.	Clarksburg	R	Remy, A. S.	Greensburg	R
Carr, J. L.	Kingston	R	Riley, W. F.	Sardinia	R
Charlton, N. E.	Forest Hill	R	Riley, J. H. S.	Sardinia	R
Clark, Thos. J.	Lett's Corner	R	Robbins, D. K.	Gaynorsville	N K
Cooke, J. M.	Adams	R	Schofield, J. V.	Harris City	R
Covert, C. A.	Greensburg	R	Scobey, D. L.	Greensburg	R
Crawford, George S.	Clifty	R	Smith, Mrs. Lavina	Clifty	A
Daily, F. M.	Millhausen	R	Smith, J. L.	Clarksburg	R
Depew, R. J.	St. Paul	R	Snedeker, F. H.	New Point	R
Dowden, A. W.	Newpoint	R	Swem, E. B.	Greensburg	R
Falconburg, M. G.	Greensburg	E	Tevis, Joel T.	St. Paul	R
Flemming, J. J.	Greensburg	N K	Thomas, Richard	Sandusky	R
FRENCH, J. C.	Greensburg	H	Webb, W. H.	Adams	R
Goff, J. W.	St. Paul	H	White, B. S.	Sardinia	R
Hause, William	Westport	E	Williams, M. H.	Sardinia	R
Hitt, J. Y.	Greensburg	R	Wooden, J. L.	Greensburg	R
Hitt, S. B.	Greensburg	R	Wooden, W. H.	Greensburg	R
Homsher, R. D.	Greensburg	E	Wright, S. V.	Greensburg	R

Regulars, 39; Homeopathic, 4; Eclectic, 4; not known, 7.

Dekalb County.

Allen, W. S.	Auburn	R	Littlefield, J. J.	Auburn	R
Bennett, J. B.	Butler	R	Matheny, T. G.	Auburn	R
Brevier, Wm.	Waterloo	E	Madden, W. H.	Butler	R
Bowman, H. W.	Blair P. O.	R	Mathews, A. B.	Sedan	E
Bolan, M. J.	Butler	R	Mercer, W. M.	Corrunna	R
Barnett, J. S.	Butler	R	Miller, Jonathan	Butler	R
Casebeer, J. B.	Auburn	R	Nusbaum, W. S.	Corrunna	R
Cowan, John A.	Auburn	R	Rudolph, Oswald.	Fairfield Centre	R
Chamberlain, James	Waterloo	R	Roether, D. B.	Garrett	R
Darby, B. A.	Waterloo	R	Sebring, David	Auburn	R
Fanning, F. W.	Butler	R	SWARTZ, D. J.	Auburn	R
Farrington, A. S.	Waterloo	R	Shepard, Z. W.	Waterloo	H
Ford, J. H.	Auburn	R	Sargent, T. C.	Garrett	R
Fosdick, E. L.	Butler	R	Stough, Solomon	Waterloo	R
Greenwald, M.	Auburn Junction	R	Snyder, F.	Corrunna	R
Houghton, Lloyd.	Spencerville	R	Swarts, Vesta.	Auburn	R
Kester, A. A.	Cedar Creek	H	Sheffer, B. S.	Blair	R
Kester, R. S.	Butler	H	Sheldon, H.	Butler	R
Kizer, S. J.	Butler	H	Thompson, J. I.	Garrett	R
Kelly, F. L.	Corrunna	R	Ward, A. A.	Waterloo	R
Lewis, James V.	Auburn	R	Ward, U. I.	Newville	R

Regular, 36; Eclectic, 2; Homeopathic, 4.

Delaware County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Ames, George F.	Eaton	R	Mitchell, H.	Muncie	R
Armitage, D. R.	Muncie	R	Murray, A. P.	Albany	R
BRADBURY, A. B.	Muncie	R	Murray, A. L.	Granville	R
Boyden, W. J.	Muncie	R	Phinney, A. J.	Muncie	H
Bowles, T. J.	Muncie	R	Puckett, E. J.	Muncie	R
Baird, J. V.	Albany	E	Polk, Mary.	Muncie	A
Bunch, R. A.	Desoto	E	Reasoner, O. I.	Shidler	R
Cotterell, D. V.	Muncie	R	Ricks, M. W.	Muncie	P-M
Clemens, W. T.	New Corner	U	Ross, J. C.	Muncie	E
Cornelius, W. W.	Daleville	U	Read, H. G.	Albany	R
Comstock, J. S. D.	Cowan	R	Skiff, Clark	Cowan	R
Day, B. F.	Harrison	R	Snodgrass, B. D.	Reads	E
Docket, Mary E.	Harrison	A	Stiers, F. R.	Selma	E
Downing, J. R.	Reads	R	Schaub, S. R.	Muncie	Sp
Eastus, W. T.	Albany	R	Snell, S. R.	Muncie	E
Flum, Mary	Shidler	A	Shively, D. M.	Yorktown	P-M
Follis, A. L.	Reads	P-M	Slack, George W.	Yorktown	R
Green, Geo. R.	Royerton	R	Shields, E. A.	Muncie	R
Green, John C.	Eaton	E	Spurgeon, W. A.	Muncie	P-M
Good, A. H.	Selma	R	Shidler, J. K.	Muncie	U
Horne, Wm. N.	Yorktown	R	Summers, H. C.	Daleville	R
Hayden, J. H.	Harrison	P-M	Schrivier, Elizabeth	Muncie	A
Jump, Samuel V.	New Burlington	R	Studley, J. W.	Desoto	U
James, M.	Muncie	R	Trobridge, D. M.	Muncie	U
Kemper, G. W. H.	Muncie	E	Wattle, John	Wheeling	R
Kenedy, E. C.	Muncie	R	Winton, E.	Muncie	R
Leech, G. D.	Muncie	R	Winans, H. C.	Muncie	R
Martin, J. S.	Muncie	H	Winans, H. M.	Muncie	R
Munsey, D. O.	New Corner	R	Youngs, R. F.	Eaton	E
Marshall, R.	Cowan	R			

Regulars, 34; Eclectics, 8; Physio-Medical, 5; Homeopathic, 2; Spiritualistic, 1; not stated, 9.

Dubois County.

Alpers, Amelia	Huntingburgh	A	Lampe, Catharine	Ferdinand	A
Alles, Jacobina	Celestine	A	Mathias, Elizabeth	Celestine	A
Blackwell, Garrett B.	Huntingburgh	E	Mann, Catharine	Portersville	A
Braunecker, Frances	St. Henry	A	Meyer, Margaretha	Hickory Grove	A
Gleppard, J.	Holland	E	McMahan, Wm. R.	Huntingburgh	R
Cook, Mary E.	Eveland	A	McCown, Chas. C.	Eveland	R
Coble, P. L.	Knoxville	N. S	Newland, Charles W.	Hillham	R
Carleton A. B.	Huntingburgh	E	Newton, Rebecca	Birdseye	A
DeMott, William M.	Haysville	R	Rust, H.	Holland	R
Decker, Sarah	Hickory Grove	A	Rudolph, Elizabeth	Porterville	A
Faulkner, Joseph F.	Birdseye	R	Reeves, R. B.	Kellersville	R
Fouts, David C.	Birdseye	N. S	Salb, John P.	Schnellville	R
Fromm, Anna M.	Celestine	A	Schrisper, John	St. Anthony	R
Glezen, Edward A.	Eveland	R	Schwartz, C. W.	Huntingburgh	R
Gutyesell, Frederica	Jasper	A	Stork, H. W.	Holland	R
Goble, Margaret	Huntingburgh	A	Stephenson, E.	Jasper	N. S
Gobble, F.	Birdseye	R	Striegle, Elizabeth	Celestine	A
Hobbs, Havilea C.	Jasper	E	Snyder, Elizabeth	Ferdinand	A
Hunter, Walter M.	Porterville	R	Wertz, Toliver	Jasper	R
Harris, Hester	Hillham	A	Welman, R. M.	Jasper	R
Johnson, Robert B.	Celestine	E	Walderip, Henry	Knoxville	R
Kempf, E. J.	Ferdinand	R	Williams, G. P.	Huntingburgh	R
Kempf, Paul H.	Ferdinand	R	Woelker, Charles	Huntingburgh	N. S
Kene, Catharine	Celestine	A	Wersing, Agnes	Schnellville	A
Line, William A.	Hillham	N. S	Wigand, Doreda	Celestine	A
Leomon, William W.	Portersville	R	WELLS, WM. H.	Jasper	R

Regulars, 21; Accoucheurs, 20; Eclectic, 6; not stated, 6.

Elkhart County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Aldrich, Charles J.	Middlebury	R	Hatch, O. W.	Elkhart	R
Aitkin, Frederick M.	Bristol	R	Irwin, A. J.	Goshen	R
Benham, F. A.	Elkhart	R	Julian, J. K.	Nappanee	R
Barbour, J. E.	Bristol	H	Jennings, J. W.	Middlebury	R
Baker, D. W.	Benton	R	Knepple, W. H.	Wakarusa	E
Bouser, J. M.	Nappanee	R	Krider, William B.	Goshen	H
Bowers, C. C.	Bristol	R	Kelly, F. L.	Bristol	R
Butt, Susannah	Bristol	A	Knowles, G. F.	Bristol	R
Crum, P. M.	Middlebury	R	LATTA, MILTON M.	Goshen	R
Casse, Lizzie	Elkhart	R	Latta, W. J.	Goshen	R
Cornell, Jacob	Goshen	R	Lambert, C. A.	Goshen	Oc
Congdon, J. N.	Bristol	R	Lambert, J. W.	Goshen	Oc
Crockett, James A.	Elkhart	R	Larigone, J. L.	Elkhart	R
Custer, Rebecca	Goshen	R	Miller, D. L.	Goshen	R
Cornell, F. M.	Goshen	E	Martin, S. E.	Middlebury	E
Corns, Charles V.	Benton	R	Murtren, G. F.	Bristol	R
Chamberlain, —	Bristol	R	Montgomery, H. F.	Wakarusa	R
Dreese, Charles S. C.	Goshen	R	Montgomery, F.	Elkhart	R
Dodge, James S.	Bristol	R	Mullholland, John R.	Goshen	H
Day, Mrs. Luella	Goshen	R	Matthews, James	New Paris	R
Eckleman, F. C.	Elkhart	R	Pixley, C. A.	Elkhart	R
Eisenbeiss, Samuel	New Paris	R	Paxson, John M.	Lock	R
Frink, Charles D.	Elkhart	R	Putt, F. L.	Middlebury	R
Fisher, Albert	Elkhart	H	Spanklin, C. C.	Goshen	R
Funk, Sophia M.	Elkhart	R	Sensemich, A. S.	Wakarusa	R
Foster, L. P.	Middlebury	R	Todd, James	County	R
Guis, S. W.	Benton	R	Thomas, Warren	Elkhart	H
Heatwole, H.	Goshen	R	Whipsey, W. A.	Goshen	H
Harding, P. D.	Middlebury	R	Work, James A.	Elkhart	H
Hendryx, T. C.	Elkhart	R	Waddell, J. H.	Goshen	R
Haggerty, Robert L.	Elkhart	R	Wickham, W. W.	Goshen	E
Hani, W. T.	Middlebury	R	Wall, G. F.	Nappanee	R
Heatwole, J. H.	Goshen	R	Zimmerman, Anna	Bristol	R
Hoover, E. Z.	Middlebury	R			

Regular, 41; Homeopathic, 7; Eclectic, 4; not stated, 15.

Fayette County.

BUTLER, D. W.	Connersville	R	Pepper, Jesse M.	Connersville	R
Chitwood, Frank	Connersville	R	Piggman, Garret	Connersville	R
Chitwood, John E.	Connersville	R	Sipe, R. W.	Orange	R
Chitwood, Joshua	Connersville	R	Shepard, S. D.	Everton	R
Chitwood, George R.	Connersville	R	Tingley, W. B.	Harrisburg	R
Dailey, Jesse	Orange	R	Turner, John	Nulls' Mills	R
Derbeyshire, E.	Bentonville	R	Tyrell, A. D.	Connersville	E
Dillman, L. D.	Connersville	R	Vance, S. W.	Connersville	R
Ellis, E. W.	Fairview	P-M	Vannings, D. H.	Falmouth	R
Elliott, H. H.	Glenwood	R	Wall, John	Connersville	R
Gregg, V. H.	Connersville	R	Webster, Elias	Connersville	H
Hamilton, S. M.	Connersville	R	Wyman, Chas.	Lyon's Station	R
Peck, M. W.	Alquina	R			

Regular, 21; Homeopathic, 1; Eclectic, 2; Phisio-Medical, 1.

Floyd County.

Alexander, S. J.	New Albany	R	Meurer, Theodore	New Albany	H
Burney, W. A.	New Albany	R	McIntyre, C. W.	New Albany	R
Brigham, R. S.	New Albany	H	Moore, Eliza J.	Mooresville	A
Bowman, Charles	New Albany	R	Nutt, C. N.	New Albany	R
Beust B.	New Albany	R	Neat, A.	New Albany	R
Bruder, Mary A.	New Albany	A	Neat, Thomas C.	New Albany	R
Cook, Charles P.	New Albany	R	Needham, Hugh	New Albany	H
Cannon, George H.	New Albany	R	Rutherford, R. S.	Galena	R
Clapp, William A.	New Albany	R	Sloan, John	New Albany	R
Davis, J. M.	Greenville	R	Schmidt, Susan	New Albany	A
Dempster, Ellen	New Albany	A	Starr, W. L.	New Albany	R
Easley, E. R.	New Albany	R	STEWART, J. L.	New Albany	R
Gray, Agnes	New Albany	A	Smith, R. C.	Greenville	E
Knoefel, R. C.	New Albany	R	Tucker, Abigail	New Albany	A
Kirkwood, J. W.	Georgetown	R	Tucker, W. W.	Georgetown	R
Kay, Robert	Greenville	R	Taggart, W. J.	Galena	R
Lung, H. B.	New Albany	R	Wolfe, M.	New Albany	R
Levi, L. D.	Georgetown	R	Wilcox, S. C.	New Albany	R
Lemon, J. H.	New Albany	R	Williams, W. R.	Greenville	R

Regular, 27; Homeopathic, 3; Eclectic, 1; School not stated, 6.

Fountain County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Austin, C. B.	Veedersburg	R	Patterson, W. P.	Snoddy's Mills	R
Armstrong, Lewis P.	Newtown	R	Petit, Marshall	Veedersburg	R
Armstrong, Wesley	Hillsboro	R	Petro, B. L.	Covington	R
Burlington, James C.	Attica	E	Quinn, J. W.	Fountain	R
Cole, W. C.	Attica	R	Rapert, Archie	Attica	R
Case, M. T.	Attica	R	Riffe, John T.	Attica	R
Cooper, Silas C.	Rynear	R	Richardson, A. G.	Newtown	R
Coggins, C. M.	Snoddy's Mills	R	Rowland, George	Veedersburg	R
Downing, Samuel G.	Riverside	R	Sparks, J. T.	Covington	R
Davidson, Frank	Walace	R	Shoot, F. A.	Yeddo	R
Dowden, James W.	Yeddo	E	Sharples, F. M.	Walace	R
Fine, E. M.	Steam Corner	E	Spinning, J. N.	Stone Bluff	E
Goodin, Goldsmith	Veedersburg	R	Stout, W. R.	Covington	R
Hays, George C.	Hillsboro	R	Talbot, Jesse N.	Hillsboro	R
Howard, G. W.	Newtown	R	Thomas, Dawn R.	Walace	R
Jones, Norman L.	Watterman	R	Wilson, W. L.	Harveysburg	R
Jones, G. S.	Covington	R	Washburn, —	Attica	R
Johnson, C. S.	Harveysburg	R	Whitehall, Alex.	Attica	R
Livengood, J. A.	Walace	R	Whitehall, Samuel P.	Attica	E
McNeil, Scott	Stone Bluff	R	Watson, C. D.	Covington	R
McClelland, A. J.	Veedersburg	R	Young, E. B.	Veedersburg	R
MOCK, J. W.	Covington	R			
Moore, P. B.	Harveysburg	R			

Regulars, 35; Eclectics, 6; School not reported, 4.

Fulton County.

Brown, Angus	Rochester.	H	Loring, C. J.	Rochester.	R
Campbell, Edward.	Marshstown.	R	Morris, J. M.	Fulton	R
Calvin, George E.	Kewanna	R	Orr, A. C.	Mill Ark	R
Clealand, W. T.	Kewanna	E	Robbins, A. H.	Rochester	R
Edson, C.	Tiosa	R	Shaffer, Winfield.	Rochester	E
Fish, James	Bloomingsburg.	R	Spohn, J. C.	Rochester	R
Gould, Vernon	Rochester.	R	SHIELDS, A. M.	Rochester.	R
Hector, Frank	Rochester.	E	Snook, C. F.	Akron	R
Hector, Cornelius	Rochester.	E	Steinburg, Chas	Beaver Dam	R
Howell, J. Q.	Kewanna	R	Towey, A. S.	Marshstown	R
Johnson, Aaron	Akron.	R	Thompson, D.	Kewanna	R
Kizer, James	Bigfoot	R	Wait, Oliver P.	Rochester.	R
Kliner, John	Bloomingsburg.	R	Wysong, A. B.	Grant.	R

Regular, 21; Homeopathic, 1; Eclectic, 4.

Gibson County.

Burton, Hiram	Somerville	R	Moxam, F. H.	Princeton	R
Blair, W. W.	Princeton	R	Montgomery, J. T.	Owensville	R
Ballard, S. H.	Haubstadt	R	Mason, G. C.	Oakland City	R
BURTON, A. R.	Princeton	R	McCoy, J. S.	Somerville	R
Brown, Thomas M.	Oakland City.	R	Neely, J. M.	Owensville	E
Clark, John J.	Owensville	R	Nelson, F.	Hazleton	R
Curtner, P. H.	Hazleton	R	Ottman, Peter	Haubstadt	R
Cole, A. C.	Owensville	E	Powell, D. G.	Princeton	R
Fisher, G. C.	Patoka	R	Patten, J. C.	Francisco	R
French, W. W.	Ft. Branch	R	Pettijean, Theresa	Haubstadt	R
Fleckenstein, Rosalie	Haubstadt	R	Rance, John W.	Ft. Branch	R
Gudgel, J. I.	Hazleton	R	Reavis, D. P.	Francisco	R
Genung, W. R.	Ft. Branch	R	Shoplaugh, S. H.	Princeton	R
Hudson, O. L.	Princeton	H	Stolt, John	Princeton	R
Hopkins, W. G.	Ft. Branch	R	Shoemaker, D. M.	Owensville	E
Ireland, J. M.	Francisco	R	Sears, G. M.	Patoka	R
Kidd, W. G.	Princeton	R	Shelton, J. W.	Somerville	R
Kendle, G. C.	Princeton	R	Steele, L. A.	Oakland City	R
Lehman, J. L.	Paloke	E	Stewart, W. H.	Oakland City	R
Leister, W. L.	Oakland City	E	Strickland, Geo	Francisco	R
Littlepage, G. C.	Warrenton	R	Thomas, G. A.	Haubstadt	R
Medcalf, W. M.	Ft. Branch	H	West, V. T.	Princeton	R
Moore, Robert	Somerville	R	Williams, J. M.	Princeton	E
Malone, J. A.	Princeton	R	Woodruff, A. C.	Owensville	R
Maghee, W. H.	Princeton	R	West E. A.	Buckskin	E
Munford, S. E.	Princeton	R	Williams, W. T.	Somerville	E
				Ft. Branch	E

Regulars, 40; Homeopathic, 2; Eclectic, 8; not reported, 2.

Grant County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Adkins, J. C. . . .	Marion	R	Lennox, Frank . . .	Swayzee	R
Archor, George K .	Marion	P-M	Lacy, T. D. . . .	Jadden	R
Barnes, R. A. . . .	Marion	P-M	Leavell, R. H. . . .	Marion	P-M
Barnes, W. C. . . .	Mier	R	Lucas, T. A. . . .	Jonesboro	R
Bantham, L. G. . .	Marion	P-M	Moore, S. W. . . .	Marion	E
Bradly, H. . . .	Marion	P-M	Meek, J. A. . . .	Jonesboro	R
Cook, F. S. W. . . .	Herbst	E	Mannring, N. H. . .	Rigdon	R
Cory, L. J. . . .	Van Buren	R	Moon, Allen	Fairmount	P-M
Cory Lavanner . . .	Van Buren	R	McKinney, G. W. . .	Jonesboro	R
Conwell, L. V. . . .	Van Buren	R	Moore, C. W. . . .	Fairmount	R
Covalt, E. D. . . .	Jalapa	E	Norris, C. P. . . .	Jadden	P-M
Carey, Isaac	Marion	P-M	Nuzum, D. C. . . .	Normal	P-M
Dunbar, C. W. . . .	Marion	P-M	Perry, A. C. . . .	Marion	P-M
Dunfee, I. . . .	Normal	P-M	Pugh, John W. . . .	Van Buren	R
Daniels, G. W. . . .	Sweetzer	R	Reasoner, H. D. . .	New Cumberland . .	R
Egbert, George . . .	Marion	R	Snodgrass, D. B. . .	Marion	P-M
Fallis, A. L. . . .	Fairmount	R	Snodgrass, M. C. . .	Marion	P-M
FLYNN, WILLIAM . .	Marion	R	Shiveley, J. S. . . .	Marion	R
Forest, J. H. . . .	Marion	E	Shiveley, M. S. . . .	Marion	R
Fisher, E. S. . . .	Upland	R	Stout, O. S. . . .	Arcana	R
Hamilton, A. A. . .	Marion	R	Seal, I. N. . . .	Hackleman	R
Hough, W. A. . . .	Marion	P-M	Small, Noah	Jonesboro	R
Hess, L. P. . . .	Marion	P-M	Stephens, A. B. . . .	Marion	P-M
Harvey, John	Jonesboro	P-M	Sellers, John	Rigdon	R
Hollis, Samuel S. . .	Upland	R	Webster, E. C. . . .	Marion	E
Henley, Alpheus . .	Fairmount	R	Weddington, S. C. .	Jonesboro	R
Horn, Samuel	Jonesboro	R	Whitson, E. M. . . .	Jonesboro	R
Hall, J. W. . . .	Sweetzer	E	Wall, M. M. . . .	Marion	H
Jones, C. R. . . .	Jonesboro	E	Wright, P. H. . . .	Fairmount	E
Jones, E. P. . . .	Marion	H	Williams, Lewis . . .	Marion	R
Jackson, G. H. . . .	Marion	R	Wright, George . . .	Fairmount	R
Knight, J. C. . . .	Jonesboro	R	Williamson, P. E. . .	Sweetzer	R
Langston, Edgar . .	Point Isabel . . .	R	Wharton, W. S. . . .	New Cumberland . .	R
Lord, J. L. . . .	Point Isabel . . .	R	Wright, M. H. . . .	Marion	P-M
Lomax, William . . .	Marion	R			

Regulars, 35; Homeopathic, 3; Eclectic, 7; Physio-Medico, 15; not reported, 9.

Greene County.

Arnold, J. G. . . .	Lyons. . . .	R	Jackson, E. J. . . .	Linton	R
Actom, W. G. . . .	Elvan	E	Kutch, John	Solsberry	R
Aydelotte, Thomas .	Worthington . . .	R	Kelsheimer, Mary . .	Worthington . . .	A
Asbury, Wm. H. H. .	Jasonville	R	LOWDER, H. R. . . .	Bloomfield	R
Burk, Wm. H. . . .	Scotland	R	Landis, D. F. . . .	Hobbierville	E
Bridwell, Lafayette.	Owensburgh	R	Mullane, Joseph . . .	Lyons. . . .	E
Burge, M. C. . . .	Park	R	Mullinix, L. P. . . .	Worthington . . .	R
Bronlette, P. L. . .	Worthington . . .	R	Morgan, E. . . .	Wright	E
Benefiel, R. A. J. .	Marco	R	McIntosh, J. P. . . .	Newark	E
Cravens, S. C. . . .	Bloomfield	R	McDowell, Wm. H. .	Hobbierville . . .	R
Cole, Willis H. . . .	Switz City	R	Norrell, H. V. . . .	Bloomfield	R
Clary, H. F. . . .	Worthington . . .	U	O'Neill, Wm. A. . . .	Newberry	E
Connell, Samuel L. .	Rockford	R	Powell, Anna M. . .	Marco	A
Cook, Peter M. . . .	Solsberry	R	Rankin, T. B. . . .	Bloomfield	R
Durment, C. R. . . .	Newberry	R	Ringo, Alonso	Jasonville	U
Dowden, W. H. . . .	Owensburgh . . .	R	Roberts, E. J. . . .	Worthington . . .	R
Dilley, L. H. . . .	Linton	E	Roberts, E. S. . . .	Worthington . . .	R
Dixon, Mary J. . . .	Dixon	A	Rose, P. A. . . .	Linton	R
Gray, John W. . . .	Bloomfield	R	Rose, P. A. . . .	Park	A
Gray, Simeon	Worthington . . .	R	Simms, James A. . .	Newberry	U
Greene, Wm. L. . . .	Worthington . . .	E	Stone, J. A. M. . . .	Switz City	R
Gambille, Nancy . .	Beetham	R	Shanklin, John R. . .	Jasonville	R
Hilburn, E. W. . . .	Newberry	R	Smyth, Wm. C. . . .	Worthington . . .	E
Hanna, Jesse	Linton	E	Squire, W. B. . . .	Worthington . . .	U
Hannan, John W. . .	Scotland	E	Spencer, J. D. . . .	Switz City	R
Herald, Henry	Owensburgh . . .	E	Sherwood, E. T. . . .	Linton	R
Hamlin, H. W. . . .	Switz City	P-M	Talbot, James E. . .	Marco	R
Hendron, L. C. . . .	Marco	U	Troxell, S. P. . . .	Worthington . . .	H
Harrab, John M. . .	Bloomfield	R	Wilson, W. L. . . .	Switz City	R
Hanna, Joseph T. . .	Beetham	U	Wood, J. E. . . .	Newark	E
Haywood, Samuel . .	Koleen	R	Williams, Noah W. .	Owensburgh	R
Hixon, W. H. . . .	Newark	U	Wells, Sarah J. . . .	Solsberry	A
Hickam, Walford . .	Newark	R			

Regular, 36; Eclectic, 11; Homeopathic, 1; Physio-Medical, 1; not reported, 12.

Hamilton County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Austin, E. P.	Noblesville	E	James, J. H.	Carmel	P-M
Benson, J. G.	Westfield	R	Loehr, E. C.	Noblesville	R
BOOTH, A. D.	Noblesville	R	Loder, C. C.	Horton	H
Barber, J. M.	Arcadia	R	Lamb, E.	Fortsville	R
Beatley, Jacob	Noblesville	R	*Lewis, T. J.	Clarksville	R
Baker, J. J.	Westfield	P-M	Leavens, A. D.	Westfield	P-M
Byers, J. S.	Noblesville	P-M	Miessee, A.	Noblesville	R
Conner, W. H.	Eagletown	R	Moore, Henry	Sheridan	R
Coffin, B. F.	Westfield	P-M	Miesse, D. D.	Noblesville	E
Carey, Daniel.	Carmel	P-M	Moore, G. B.	Omega	R
Corney, F. W.	Sheridan	R	Murphy, J. M.	Clarksville	R
Cook, C. W.	Clarksville	P-M	McMurty, T. J.	Boxley	R
Canada, James L.	Noblesville	R	McGee, Joseph A.	Sheridan	R
Davenport, H. E.	Sheridan	R	McShane, T. J.	Carmel	R
Davenport, J. W.	Sheridan	R	Newby, John C.	Boxley	R
Dove, S. C.	Westfield	R	Orr, C. M.	Cicero	R
Dunn, J. R.	Boxley	R	Pettijohn, O. B.	Deming	R
Driver, J. C.	Shieldsville	R	Parr, J. N.	Jolietville	R
Englerth, Jasper	Westfield	P-M	Pettijohn, J. B.	Westfield	R
Eskew, H. T.	Eagletown	R	Pettijohn, Amos	Arcadia	R
Fancher, J. W.	Sheridan	R	†Prezenger, J. R.	Noblesville	R
Ferguson, W. P.	Sheridan	P-M	Anna, Rhodes	Shieldsville	R
Graham, W. B.	Noblesville	R	Smith, T. J.	Strawtown	R
Gray, J. M.	Noblesville	R	Stout, H. H.	Cicero	R
Griffin, Robt. I.	Deming	R	Smith, D.	Noblesville	H
Glass, W. I.	Tipton County	R	Starchman, Lewis	Arcadia	R
Howorth, M. C.	Noblesville	R	Sanders, J. M.	Cicero	R
Hobson, Joice F.	Noblesville	E	Sutphin, J.	Noblesville	R
Harbough, C. A.	Aroma	R	Stockinger, Henry	Shieldsville	R
Houser, J. A.	Arcadia	R	Tucker, A. R.	Cicero	R
Harold, N. G.	Carmel	R	Taylor, W. T.	Fortsville	R
Hershey, K. C.	Carmel	R	Whitesell, P. P.	Clarksville	R
Haworth, Wm.	Deming	R	Warford, F. M.	Cicero	R
Herr, H. S.	Westfield	R	Williams, W. N.	Noblesville	R
Hunt, E. A.	Carmel	P-M	White, T. A.	Newbritton	R
Kitchel, J. S.	Noblesville	H	Warman, A. J.	Shieldsville	R

Regular, 55; Homeopathic, 3; Eclectic, 3; Physio-Medico, 10; not stated, 2.

*Indian doctor. †A traveling pile doctor, visits Noblesville monthly.

Hancock County.

Adams, M. M.	Greenfield	R	Hewery, F. F.	Maxwell	R
Andrews, J. O.	Westland	R	Judkins, E. I.	Greenfield	R
Allen, Bellzina.	Cleveland	R	Justice, W. A.	Eden	R
Bradway, C. F.	New Palestine	R	Julian, J. P.	Warrington	P-M
Boots, S. S.	Greenfield	E	King, W. R.	Philadelphia	R
Buchel, Jacob	New Palestine	R	Kirkhoff, C. H.	New Palestine	R
Cary, John D.	McCordsville	E	Larimore, J. M.	Carlton	R
Cox, W. B.	Charlottesville	R	Martin, S. M.	Greenfield	R
Coffin, O. S.	Greenfield	E	Pratt, C. C.	Milner's Corner	R
Carter, L. A.	Eden	R	Ryan, W. B.	Willow Branch	N. S.
Edwards, O. M.	Greenfield	R	Stuart, J. G.	Fortville	R
Ely, J. M.	New Palestine	R	Selman, J. W.	Greenfield	R
Ely, L. C.	New Palestine	R	Saunders, J. K.	Fortville	R
Ewbank, G. C.	Philadelphia	R	Trees, William	Warrington	R
Francis, J.	Greenfield	R	True, B. F.	New Palestine	R
Grass, Daniel.	Charlottesville	R	Trees, J. R.	Cleveland	R
Garrett, O. H.	Warrington	R	Troy, S. A.	Milner's Corner	R
HOWARD, Sr., N. P.	Greenfield	R	Tague, George	Benwood	R
Howard, Jr., N. P.	Greenfield	R	Trump, J. F.	Westland	R
Hall, J. A.	Greenfield	E	Wright, I. E.	Charlottesville	R
Hanna, R. D.	Warrington	R	Wray, Mary J.	Cumberland	A
Hess, M. M.	Cleveland	R	Yancy, S. T.	Fortville	R
Hewery, Thomas P.	McCordsville	R			

Regular, 37; Eclectic, 4; Physio-Medico, 1; not stated, 2.

Harrison County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Askren, Cort. F.	Corydon	R	Jones, James H.	Rosewood	R
Bennett, James H.	New Amsterdam	R	Kandie, W. A.	Laconia	R
Clark, J. C.	Corydon	R	LAWSON, J. E.	Corydon	R
Curry, John	Mauckport	R	LaFollette, Wm. P.	New Salisbury	R
Davis, W. H.	New Middleton	R	Mott, Joseph	Palmyra	R
Debruler, O. E.	Valley City	R	Mitchum, L., (Col'd)	Crisp's X Roads	R
Denbo, W. R.	Crisp's X Roads	R	Neely, Isaac L.	Corydon	R
Dean, H. K.	Mauckport	R	Reader, William	Corydon	R
Ellis, Joseph	Bradford	R	Reader, W. H.	New Amsterdam	R
Forbis, B. F.	Laconia	R	Smith, A. E. L.	Corydon	R
Fisher, D. S.	Valley City	R	Stevens, T. J.	Corydon	R
Fouts, Noah	New Salisbury	R	Sigle, R. R.	Barren	R
Funk, Z. T.	Elizabeth	R	Smith, James I.	New Middleton	R
Fouts, H. C.	Lanesville	R	Winders, L. C.	Sharp's Mills	R
Finley, John F.	Palmyra	R	Wolfe, H. S.	Corydon	R
Haye, D. B.	Central	R	Wolfe, S. C.	Elizabeth	R
Homer, Jacob S.	Lanesville	R	Wolfe, L. O.	Mauckport	R
Jones, A. M.	Corydon	R	Zenor, J. W.	New Middleton	R

Regular, 35; Homeopathic, 1.

Hendricks County.

Adams, T. J.	North Salem	R	Hamilton, Samuel E.	Chartersburg	R
Barker, Joel S.	Brownsburg	R	Johnson, T. W.	Danville	H
Brill, James H.	Pittsboro	R	Johnson, A. B.	Lixton	R
Broadhurst, John	North Salem	E	KENNEDY, L. H. T.	Danville	R
Brent, Isaac N.	Pittsboro	R	Lewis, Robert	Plainfield	R
Bartholomew, B.	Danville	R	Lawson, Wilson L.	Danville	R
Brooks, M. W.	Center Valley	R	Lind, G. Dallas.	Danville	P-M
Bray, Lot T.	Mount Clair	E	Masters, N. G.	Stilesville	R
Brazer, S. S.	New Winchester	R	Mansbridge, I. W.	Hadley	R
Cloud, C. F. C.	Pittsboro	R	Moore, R. C.	Belleville	R
Cloud, R. E.	Pittsboro	R	Mitchell, Lucretia	Danville	A
Davidson, A. M.	Brownsburg	R	Marsh, John L.	Brownsburg	E
Dryden, Thos. F.	Clayton	R	Margan, Abraham	Chartersburg	E
Dewep, M. F.	Danville	R	Osborne, John A.	Stilesville	R
Deweese, Leslie	Joppa	R	Orear, R. F.	North Salem	R
Evans, Thos.	Plainfield	R	Parker, Montraville G.	Danville	R
Farabee, C. E.	Danville	R	Proctor, James M.	North Salem	R
French, John S.	Brownsburg	R	Ragan, John S.	Avon	R
Graham, Thos. A.	Brownsburg	R	Roberts, John D.	North Salem	E
Green, I. N.	Stilesville	R	Reagan, Jesse	Plainfield	R
Gilbert, A. K.	Clayton	R	Smith, F. W.	Plainfield	R
Gullifer, T. B.	Plainfield	H	Summers, H. C.	Amo	R
Grimes, W. T.	Center Valley	R	Strong, A. M.	Belleville	R
Hoadley, W. I.	Danville	R	Strong, I. T.	Plainfield	R
House, Geo. H. F.	Peeksburg	R	Snowdon, Jesse	Maple Wood	E
Heavenridge, Allen	Stilesville	R	Todd, Henry G.	Danville	R
Hurt, G. K.	New Winchester	R	Towles, A. N.	Danville	R
Hunt, Tighlman	Coatsville	R	White, C. A.	Danville	R
Hunt, Stephen	Coatsville	R	White, W. H.	Amo	R
Huron, F. H.	Danville	H	Zeley, Sturges	Coatsville	R
Hiatt, L. I.	Plainfield	R			

Regular, 50; Homeopathic, 3; Eclectic, 6; Physio-Medical, 1; not reported, 1.

Henry County.

Anderson, J. T.	Honey Creek	R	Cole, John A.	Knightstown	R
Baily, G. D.	Spiceland	R	Clapper, David	Moreland	H
Baily, Rachel S.	Spiceland	R	Dewey, Rebecca J.	Knightstown	H
Burk, G. W.	New Castle	R	Eskew, J. W.	Kennard	R
Boor, W. F.	New Castle	R	Englerth, J. T.	Honey Creek	P-M
Boor, W. A.	New Castle	R	Estabrook, L. W.	Springport	R
Benedict, H.	Springport	R	Ewing, W. C.	Knightstown	R
Bartlett, W. M.	Lewisville	R	Ferris, Samuel	New Castle	R
Bowie, T. C.	Greensboro	R	Fertich, G. W.	Blountsville	R
Bryson, W. A.	Rogersville	P-M	GRONENDYKE, T. W.	New Castle	R
Bartlett, A. C.	Lewisville	R	Gibbs, C. N.	New Lisbon	R
Bartlett, W. C.	Danreith	R	Gustin, F. M.	Middletown	R
Crouse, H. W.	Knightstown	R	Griffin, Robert	Middletown	R
Craighead, R. D.	Danreith	R	Green, A. W.	Knightstown	R
Cochran, James	Spiceland	R	Guyer, O. K.	Lewisville	R
Cotterall, C. F.	Spiceland	R	Hobbs, Wilson	Knightstown	R

Henry County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Holinger, I. W.	Blountsville	R	Rea, John.	New Castle	R
Hess, F. C.	Cadiz	R	Ren, George N.	New Castle	R
Holoway, E. O.	Knightstown	R	Rawlins, F. T. C.	Maple Valley	R
Hardesty, J. C.	Millville	R	Reasoner, W. R.	Sulphur Spring	R
Hobbs, A. W.	Knightstown	R	Rutledge, E. D.	Sulphur Spring	E
Homer, R. C. H.	Knightstown	P-M	Ross, Jonathan.	Blountsville	R
Hubbard, Elias	New Castle	E	Smith, R. A.	Greensboro.	P-M
Jackson, F. G.	Mount Summit	R	Stafford, J. A.	Millville	P-M
Jones, H. W.	Spiceland	R	Stanley, J. C.	Knightstown	R
Julian, O. H.	Maple Valley	R	Smith, Mary J.	Greensboro	P-M
Kissel, Wm.	New Castle	R	Stafford, D. H.	New Castle	P-M
Moffett, B. Y.	Ogden	R	Smith, N. G.	Lewisville	E
Mendenhall, Isaac	New Castle	R	Thornburg, F. L.	Middletown	R
Mendenhall, E. T.	New Castle	R	Thompson, J. F.	New Castle	H
Moore, J. W.	Mechanicsburg	P-M	Van Nuy, Wm.	Lewisville	R
McGavern, W. B.	Knightstown	R	Welsh, J. H.	Middletown	R
McKillep, James	Grant City	R	Weaver, John	Knightstown	R
Needham, John	New Castle	P-M	Wayman, John	Knightstown	P-M
Norviel, R. D.	Mount Summit	E	Whitesel, J. W.	Knightstown	R
Newby, Zimri	Greensboro	R	Weakly, D. N.	Straughn	R
Nellis, S. B.	Knightstown	H	Weeks, Joseph	Mechanicsburg	P-M
Pickering, Samuel	New Lisbon	R	Waters, S. C.	Middletown	R
Pendleton, C. B.	Mechanicsburg	P-M	Winston, L. V.	Knightstown	R
Riddle, G. W.	Knightstown	R	Zimmerman, G. W.	Cadiz	R

Regular, 61; Homeopathic, 4; Eclectic, 4; Physio-Medico, 12.

Howard County.

Armstrong, E. A.	Kokomo	R	Moore, J. B.	Kokomo	R
Byers, J. J.	Hemlock	E	Miller, L. C.	Alto	R
Beisecker, J. W.	West Middletown	E	Mendenhall, M. C.	Russiaville	R
Berst, J. H.	Kokomo	R	Miller, H. C.	Ervin	R
Baty, Thomas	Oakford	R	Martin, I. W.	Ervin	R
Bates, Aaron J.	Kokomo	R	Murray, S. T.	Greentown	R
Bullard, W. F.	No Go	E	Miller, A. W.	Plevina	E
Bagwell, L. A.	Greentown	R	Newlin, S.	New London	E
Covalt, A. A.	Greentown	R	Newlin, W. L.	New London	E
Cooper, William	Kokomo	E	Puckett, J. L.	Kokomo	E
Colescot, Wesley	Greentown	R	Pickett, J. S.	Kokomo	R
Conner, Lee	Jerome	R	Payton, Bruce	Greentown	R
Darnell, J. M.	Kokomo	R	Peters, D. C.	Jerome	R
Dayhuff, A. F.	Kokomo	R	Payne, A. T.	Russiaville	E
Freeman, A. C.	Kokomo	R	Rice, E. C.	Oakford	E
Gifford, T. V.	Kokomo	W. C.	Richmond, C.	Kokomo	R
Garr, J. O.	Kokomo	R	Scott, William	Kokomo	R
Galway, Mary	Sycamore	A	Scott, G. B.	Greentown	R
Hull, W. H.	Center	R	Scott, J. T.	Greentown	R
Iles, S. B.	Russiaville	R	Smith, R. H.	Kokomo	R
Johnson, I. C.	Kokomo	R	Sawyer, E. W.	Kokomo	H
Kern, L.	Alto	R	Shirley, D. J.	New London	R
Kern, Theodore	Kokomo	R	Spray, Kisiah	West Liberty	A
Kemp, George W.	Russiaville	R	Thomas, R.	Oakford	R
Kirkpatrick, D.	Kokomo	R	Wilson, R. Q.	Kokomo	R
Lawshe, I. F.	Sycamore	R	Wright, J. C.	Russiaville	R
MOULDER, J. McL.	Kokomo	R	Ware, C. M.	West Liberty	R
Moulder, T. M.	Russiaville	R	Wooley, C. A.	Kokomo	R

Regular, 42; Homeopathic, 1; Eclectic, 9; not stated, 3.

Huntington County.

Bucher, J. C.	Andrews	R	Eversole, Charles.	Pleasant Plain	R
Boswell, A. J.	Andrews	R	Ferguson, Donald	Huntington	H
Brandon, W. S.	Plum Tree	R	France, Mrs. Amanda	Huntington	A
Brelsford, Jas. W.	River	R	Grayston, F. S. C.	Huntington	R
Burton, J. B.	Brown's Corners	P-M	Grayston, B. H. B.	Huntington	R
Crandall, Thomas	Majenica	E	Good, Jones	Warren	R
Carson, W. F.	Rosnoke	R	Grayston, Charles E.	Huntington	R
Chenoweth, G. P.	Mt. Etna	R	Good, Charles H.	Warren	R
Chaffee, W. C.	Huntington	R	Hupp, Samuel	Warren	R
Chaffee, Alfred B.	Rosnoke	R	James, Martin	Andrews	R
Conner, James S.	Belleville	P-M	Kilander, Wm. J.	Markle	R
Dietrich, W. A.	Huntington	R	Leyman, Emory H.	Huntington	R

Huntington County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Leyman, Daniel S.	Huntington.	R	Scott, Noble W.	Mt. Etna.	R
Lamon, C. E.	Majenja.	R	Smith, Isaac A.	Majenja.	R
Lyons, Ira Z.	Huntington.	R	Stauffer, Walter O.	Bracken.	R
Lyons, William B.	Huntington.	R	Sproul, John S.	Warren.	R
Lane, B. A.	Andrews.	P-M	Scott, Joseph.	Markle.	R
Murray, L. E.	Markle.	R	Shaffer, Edward A.	Huntington.	R
Mitchell, S. P.	Mt. Etna.	R	Stout, O. L.	Markle.	R
Mock, J. F.	Huntington.	R	Shaffer, Abner H.	Huntington.	R
McLin, G. H.	Huntington.	H	Trembley, Geo. D.	Mt. Etna.	R
Palmer, Daniel.	Warren.	R	Williams, O. B.	Andrews.	R
Palmer, E. M.	Warren.	R	Williams, Wm. H.	Harlansburg.	R
Pedley, W. F.	Hardensburg.	R	Wright, Ervin.	Hoboken.	R
SEVERANCE, L.	Huntington.	R	Wallace, L. S.	Hoboken.	R
Schooten, Wm. D.	Monument City.	R	Wynan, C. P.	Andrews.	R
Scarles, Joseph D.	Huntington.	E	Young, E. T.	Andrews.	R
Scarles, F. M.	Roanoke.	R	Yingling, Daniel.	Huntington.	E

Regular, 46; Homeopathic, 1; Eclectic, 3; Physio-Medico, 3; not stated, 2.

Jackson County.

Anthony, J. R.	Tampico.	R	Manuel, Grafton.	Freetown.	E
Barnes, George O.	Cortland.	R	Monroe, V. H.	Seymour.	R
BOAS, M. L.	Brownstown.	R	Meahl, Mary.	Vallonia.	A
Bard, Thomas.	Uniontown.	R	McCormack, L. R.	Crothersville.	E
Bain, W. C. A.	Brownstown.	R	McMillan, J. P.	Medora.	R
Bergh, Chas.	Shields.	R	Newkirk, A. L.	Seymour.	R
Brimer, Drusilla.	Tampico.	A	Oppenheimer, L. S.	Seymour.	R
Burdsal, Charles A.	Uniontown.	R	Orvis, G. Q.	Seymour.	R
Cummings, H. A.	Spraytown.	R	Osterman, A. G.	Dudleytown.	R
Coryell, Samuel.	Crothersville.	R	Patrick, C. E.	Seymour.	E
Cave, T. R.	Crothersville.	R	Rains, G. W.	Cortland.	R
Charlton, S. H.	Seymour.	R	Ruddick, Lindley M.	Reddington.	R
Cummings, D. J.	Houston.	P-M	Rodman, W. M.	Ewing.	R
Casey, W. M.	Seymour.	R	Reed, E. P.	Ewing.	R
Chute, G. H.	Freetown.	R	Richards, Thomas J.	Mooney.	R
Compton, Levina.	Brownstown.	A	Shields, John T.	Seymour.	R
Carpenter, Pernecia.	Crothersville.	A	Shipman, N. N.	Seymour.	R
Davis, John W.	Mooney.	A	Shields, J. S. Sr.	Seymour.	R
Ewing, F. M.	Vallonia.	R	Shields, James M.	Seymour.	R
Ehrhart, Mary.	Ewing.	A	Stillwell, Joseph A.	Brownstown.	R
Gerrish, M. F.	Seymour.	R	Stornes, Riley.	Maumee.	R
Galbraith, Thos. S.	Seymour.	R	Sweeney, Everett.	Seymour.	R
Gibson, George W.	Houston.	R	Smith, W. H.	Leesville, Lawr'co.	R
Green, Wm. Orris.	Dudleytown.	R	Tinch, E. T.	Freetown.	R
Gabbart, W. A.	Tampico.	E	Warner, W. H.	Crothersville.	E
Heilkamp, Elizabeth.	Seymour.	A	Wilson, M. V.	Medora.	R
Hodop, Bertha.	Seymour.	A	Wagoner, T. M.	Freetown.	R
Hurekamp, Charlotte.	Cortland.	A	Woods, Robert A.	Seymour.	R
Kyte, D. N.	Freetown.	P-M	Wells, James C.	Mooney.	R
Mitchell, J. J.	Tampico.	R	Williams, Sarah.	Spraytown.	A
Moy, Albert R.	Crothersville.	R	Whitehead, W. E.	Vallonia.	R
Moy, G. W.	Mooney.	R			

Regular, 44; Eclectic, 5; Physio-Medico, 2; not reported, 12.

Jasper County.

Alter, M. B.	Rensselaer.	R	Maxwell, S. C.	Remington.	R
Antrim, Thomas.	Demotte.	E	Patton, D. H.	Remington.	R
Bitters, F. P.	Rensselaer.	R	Richey, Samuel.	Rensselaer.	R
Deming, J. C.	Rensselaer.	R	Richey, James.	Rensselaer.	R
Grant, Caroline C.	Rensselaer.	A	Robbins, Ira B.	Roselawn.	H
Hartsell, W. W.	Rensselaer.	H	Reigle, M. W.	Remington.	R
Loughridge, J. H.	Rensselaer.	R	Stockwell, Williard.	Blackford.	E
Martin, K. Y.	Rensselaer.	R	WASHBURN, I.	Rensselaer.	R

Regular, 10; Homeopathic, 2; Eclectic, 2; not stated, 1.

Jay County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Arthur, C. S.	Portland	R	Miles, J. T.	Bryant	P-M
Anderson, J. M.	Dunkirk	N. S	Mason, Samuel	Pennville	R
Allen, D. M.	Portland	R	Mack, C. W.	Portland	R
Bosworth, J. M.	Camden	R	Munsey, Samuel E.	New Mt. Pleasant	P-M
Blackledge, L. N.	Camden	P-M	Morehouse, J. A.	Portland	P-M
Blackledge, Mrs. L. N.	Camden	P-M	Mincks, F. M.	Portland	H
Ballard, Amos B.	New Pittsburgh	R	Moon, Ezra	Portland	E
Barrack, Isaac	Bluff Point	R	Poling, S. R.	Portland	E
Connors, T. C.	Red Key	R	Ralston, A.	New Corydon	R
Crogan, John M.	Dunkirk	R	Ross, J. G.	Westchester	E
Clevenger, B. C.	Dunkirk	R	Skinner, B. S.	Salamonia	E
Chew, C. E.	Salamonia	R	Saunders, B. S.	Camden	P-M
Conti, J. T.	Green	R	Shephard, T. S.	Portland	E
Comstock, Abe	Portland	R	SIMS, I. G.	Portland	R
Dickes, Phillip	Boundry	R	Sage, J. T.	Red Key	R
Davis, R. P.	Portland	R	Selvey, S. S.	Dunkirk	R
Dillon, J. C.	Dunkirk	R	Sherwood, C.	Dunkirk	R
Gillem, James	Portland	E	Stanton, D. S.	Dunkirk	R
Glentzer, M. A.	Bryant	P-M	Sherwood, K. R.	Pennville	R
Gillem, S. A. D.	Portland	E	Shephard, G. W.	Red Key	E
Hutchens, J. A.	Salamonia	E	Vale, Isaac M.	Westchester	E
Kidder, J. F.	New Mt. Pleasant	E	Wiest, Jonas	Portland	R
Kinsey, D. S.	Portland	R	Wicks, James	Camden	P-M
Lewis, Emma B.	Pennville	R	White, T. C.	Powers	R
Mendonhall, Maria	Pennville	A	Petery, Anna.	Portland	R
Milligan, Arthur.	Bryant	P-M			

Regular, 21; Eclectic, 10; Physio-Medico, 9; not stated, 10.

Jefferson County.

Blair, E. B.	Bryantsburg	R	Lawder, A. G.	Brooksburg	R
Brengle, J. S.	Hanover	R	Lewis, Jas. R.	Madison	R
Cornett, W. T.	Madison	R	Lewis, Geo. B.	Kent	R
Chastine, H. W.	North Madison	R	Lewis, Jas. F.	Dupont	R
Cotton, Lucinda	Madison	A	Mullen, J. W.	Madison	R
Conklin, E. L.	Madison	E	Matthews, J. H.	Madison	R
Conway, J. W.	Madison	R	McCoy, W. A.	Madison	R
Cogley, T. J.	Madison	R	McCoy, G. F.	Lancaster	R
Christie, J. H.	Canaan	R	McCarty, —	Canaan	R
Davis, Jacob T.	Graham	R	Reynolds, John	Wirt	R
Dixon, B. C.	Deputy	R	Ryker, Chas	Manville	R
Ford, S. M.	Madison	R	Reumeline, R. H.	Madison	R
Flanders, J. W.	Dupont	R	Smith, A. D.	Deputy	R
Forshee, T. W.	Madison	R	Tevis, E. M.	Brooksburg	R
Firth, C. C.	Wirt	R	Tevis, E. R.	Brooksburg	R
Hutchings, W. D.	Madison	R	Townsend, S. M.	Madison	R
Hutchinson, J. R.	Madison	H	Wilson, Lawrence	Volga	R
Hunter, Jas	Barbersville	R	Wright, C. H.	Madison	R
Johnson, A. H.	Saluda	R	Watts, H. N.	Harrell	E
Lewis, Sam'l B.	Canaan	R			

Regular, 30; Homeopathic, 1; Eclectic, 2; not reported, 6.

Jennings County.

Adams, S. D.	Brewersville	R	Light, A. B.	North Vernon	R
Amick, C.	Six Mile	R	Lyle, Jno. M.	Comiskey	R
Case, A. G.	Nebraska	R	MITCHELL, JAS. F.	Vernon	R
Cope, Jas. P.	Vernon	R	Nelson, H. G.	Butlerville	R
Coryea, Francis M.	Zenas	R	Remy, W. A.	Zenas	R
Firsich, B.	North Vernon	R	Reynolds, Geo. E.	Scipio	R
Gaddy, N. D.	Lovett	R	Reynolds, S. H.	Scipio	R
Gaddy, Orville	Paris Crossing	R	Richardson, N.	Vernon	R
Green, Chas. H.	North Vernon	R	Richardson, Wm. H.	Vernon	R
Hanna, James	Paris Crossing	R	Russell, Benj. F.	Paris	R
Hamant, Elizabeth	Six Mile	A	Shepherd, Jas. F.	Queensville	R
Hodap, Bertha	Six Mile	A	Spencer, Jno. A.	San Jacinto	R
Kendrick, Nathan	San Jacinto	R	Steffey, J. P.	North Vernon	H
Kyle, Jas. W.	North Vernon	R	Wiles, Christian H.	Six Mile	R
Lefever, James M.	Paris	R	Wilson, Cyrus L.	Lovett	R
Lurton, Chas. F.	Comiskey	R	Wycoff, W. R.	Butlerville	R

Regular, 23; Homeopathic, 1; not stated, 3.

Johnson County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Adams, J. H.	Amity.	R	Maze, T. B.	Needham.	R
Adams, David	Edinburg.	E	Mercer, J. L.	Rocklane.	R
Bland, John A.	Edinburg.	R	Noble, Thomas B.	Greenwood	R
Beebe, James.	Whiteland	R	O'Dwyer, Mary A.	Needham	A
Covert, G. W.	Whiteland	R	Ott, Lyman E.	Franklin	R
Carnes, Z.	Greenwood	R	Payne, P. W.	Franklin	R
Donnell, John H.	Franklin	R	Province, W. M.	Providence.	R
Donnell, T. C.	Franklin	R	Quick, Samuel B.	Edinburg.	R
Dobyns, K. P.	Whiteland	R	Rush, W. P.	Edinburg.	E
Dixon, J. W.	Nineveh	R	Ream, J. B.	Trafalgar	R
Favis, A. T.	Rocklane.	R	Saddler, J. J.	Edinburg.	R
Farris, J.	Bargersville.	R	Thompson, Howard	Franklin	R
George, DeWitt J.	Franklin	H	Taggart, Robert	Franklin	R
Hall, W. C.	Franklin	R	Tilford, W. E.	Bargersville	R
Hall, H. J.	Franklin	R	Tresslar, J. G.	Bluff Creek	P-M
Hendricks, Wm. C.	Greenwood	R	Webb, Wm. A.	Franklin	R
Hibbs, Irwin	Bluff Creek.	R	Wallace, B.	Franklin	R
JONES, J. T.	Franklin	R	Wood, J. C.	Franklin	R
Kegley, John L.	Stones Crossing.	R	Willan, E. B.	Trafalgar.	R
King, John	Bluff Creek.	P-M	Willan, R. Day	Trafalgar.	R
Lannam, J. H.	Nineveh	R	Wishard, J. M.	Greenwood.	R
Marshall, J. A.	Nineveh	R	Whitesides, C. E.	Edinburg.	R
Miller, A.	Whiteland	R			

Regular, 36; Homeopathic, 1; Eclectic, 2; Physio-Medico, 2; not stated, 4.

Knox County.

Anderson, W. B.	Edwardsport.	R	Lytton, Jefferson	Wheatland	R
Austin, Thomas R.	Vincennes	R	McDonald, M. M.	Freelandville	R
Alsop, George R.	Freelandville	R	Martin, William H.	Lovely Dale	R
Allen, William H.	Lovely Dale	R	Merrett, James N.	Oak Town	R
Berry, John F.	Freelandville	R	McGower, William	Oak Town	R
Barnett, John H.	Lovely Dale	R	Mantle, John R.	Vincennes	R
Bugg, Juan F.	Wheatland	R	McDowel, James M.	Bruceville	R
Black, Elijah C.	Wheatland	R	Milam, John W.	Bruceville	R
Branstrup, Wm. T.	Vincennes	H	Mayfield, John P.	Bruceville	R
Bauer, Madestrup	Vincennes	R	Martin, Z. G.	Bruceville	R
Boyd, Eli	Vincennes	R	Owens, T. B.	Emison Station	R
Beard, F. W.	Vincennes	R	Parker, R. G.	Pond Creek	R
Beaver, John C.	Vincennes	R	Pugh, John W.	Oak Town	R
Beaver, Alice W.	Vincennes	E	Reed, Emanuel	Bicknell	R
Cross, John E.	Vincennes	R	Reeves, Joseph L.	Edwardsport	R
Davenport, W. H.	Vincennes	R	Ray, Joel M.	Emison Station	R
Ducade, James	Wheatland	R	Robins, John F.	Freelandville	R
Ducade, John	Wheatland	R	Randolph, John A.	Vincennes	R
Davis, Royce	Decker's Station	R	Swartzell, Joseph A.	Vincennes	R
Fairhurst, O.	Vincennes	R	Smith, H. M.	Vincennes	R
Freeland, John T.	Freelandville	R	Sparks, Nathan B.	Lovely Dale	R
Fairhurst, William	Bruceville	R	Sparks, Miller M.	Lovely Dale	R
Faith, A. H.	Edwardsport	R	Spaulding, George L.	Sandburn	R
Grigsby, William B.	Oak Town	R	Staley, L. B.	Bicknell	R
Hensley, John M.	Vincennes	R	Trueblood, J. W.	Bicknell	R
HARRIS, F. M.	Vincennes	R	Thompson, John S.	Bruceville	R
HARRISON, Samuel	Vincennes	R	Van Dress, E. C.	Lovely Dale	R
Harris, W. B.	Vincennes	R	Williams, James T.	Jourdenville	R
Hunt, P. J.	Pond Creek	R	Wise, W. H.	Oak Town	R
Hungate, Ed. M.	Sandburn	R	Warner, M. E.	Oak Town	R
Hawkins, John P.	Decker's Station	R	Wheeler, T. M.	Sandburn	R
Jessup, Robert B.	Vincennes	R	Young, Newton	Lovely Dale	R
Jones, W. H.	Bicknell	R			

Regulars, 63; Homeopathic, 1; Eclectic, 1.

Kosciusko County.

Becknell, I. J.	Milford.	R	Bailey, A.	Silver Lake	E
Burket, B.	Warsaw	R	Byler, J. M.	Warsaw	H
Burket, C. W.	Warsaw	R	Burns, A. M.	Silver Lake	R
Bash, J. M.	Warsaw	R	Burwell, Mrs. A. M.	Atwood	A
Brown, G. W.	Claypool	R	Collar, A. R.	Syracuse	R
Biglow, S.	Silver Lake	E	Chandler, J. A.	Mentone	E
Boydston, B. S.	Galveston	E	Cable, Mrs. Chas.	Milford	A
Black, Catherine	North Webster	A	Cammaek, Thos	Milford	R

Kosciusko County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Clayton, C. M.	Warsaw	E	Marine, J. F.	Hepton	R
Coons, M. J.	Etna Green	E	Matchett, Wm. C.	Pierceton	E
Cline, J. W.	Claypool	P-M	Moody, Theo. F.	Pierceton	R
Cowgill, H. M.	Warsaw	P-M	Michael, E.	Leesburg	R
DAVISSON, J. H.	Warsaw	R	Outkelt, Harriet	Pierceton	A
Davenport, T.	Warsaw	R	Ogle, John J.	North Webster	E
Dick, Milford L.	Pierceton	E	Olney, F. E.	Warsaw	R
Dick, D. J.	Pierceton	E	Peck, C. F.	Leesburg	R
Furlong, Mrs. M. J.	Warsaw	R	Pearman, F. M.	Palestine	R
Funk, Polly	Silver Lake	A	Parks, John P.	Atwood	R
Goble, Mrs. Joseph	Atwood	A	Parker, J. W.	Oswego	I
Gilpin, E. P.	Milford	R	Ritter, Mrs. John	North Webster	A
Goodall, Mary J.	Warsaw	R	Robinson, A. B.	Etna Green	E
Hayes, William	Pierceton	R	Ritter, Harman	North Webster	E
Heffley, John W.	Burket	H	Robinson, R.	Monoquet	E
Holloway, J. N.	Etna Green	E	Smith, J. S.	Warsaw	P-M
Hazel, J. B.	Claypool	R	Stenter, Elizabeth	North Webster	A
Hatfield, T. J. & wife	Pierceton	R	Swyhart, C. M.	Warsaw	E
Hoopingartner, J. J.	Milford	R	Seeley, Mrs. Edward	Pierceton	A
Ihrig, F. M.	Syracuse	E	Strode, A. B.	Silver Lake	E
Junkins, Samuel B.	North Webster	R	Schoonover, W. R.	Oswego	R
Johnson, J. H.	North Galveston	E	Swigart, H. M.	Atwood	R
Johnson, Mrs.	Orion	A	Strain, T. W.	Silver Lake	E
King, Hiram O.	Pierceton	R	Sherbondy, G. W.	Silver Lake	R
Keen, Levi	Milford	H	Smith, Scott W.	Pierceton	R
Kline, Mrs.	Orion	A	Scott, Wm	Pierceton	R
Kelley, D. C.	Syracuse	E	Stockbarger, E.	Mentone	R
Knorr, C.	Syracuse	E	Terry, D. E.	Silver Lake	R
Ketchum, Geo.	Claypool	R	Tenant, L. H.	Pierceton	R
Leedy, Mrs. Edward	Princeton	A	Thomas, Samuel	Leesburg	R
Love, John W.	Milwood P. O.	E	Vaughn, Martin	Packerton	R
Long, Charles R.	Pierceton	R	Webber, I. B.	Warsaw	E
Lindsey, Mrs. John	Milford	A	Wooley, A.	Warsaw	E
Lancaster, T. A.	Sidney	R	Wall, J. J.	Beaver Dam	E
Moro, Francis	Warsaw	R	Wryland, Margaret	Syracuse	A

Regular, 35; Homeopathic, 4; Eclectic, 23; not registered, 21.

Lagrange County.

Balyear, —	Lagrange	H	Niman, Jonas P.	Lagrange	R
Broughton, F. H.	Walcottville	R	Niman, Chas. H.	Lagrange	R
Crane, Mrs. E. L.	Lagrange	H	Price, H. B.	Woodruff	R
CASEBEER, H. M.	Lagrange	R	Raly, Wm.	Walcottville	R
Dayton, Geo. H.	Lima	R	Shroch, H. W.	Shore	R
Dancer, John.	South Milford.	R	Spaulding, A. M.	Bushy Prairie	R
Engle, J. B.	Lagrange	R	Short, John L.	Lagrange	R
Firestone, —	Monge	R	Short, Wm. H.	Lagrange	R
Ferguson, W. A.	Brighton	R	Thomas, S. A.	Lagrange	E
Goodrich, C. D.	Lima	R	Toms, Adolphus	Scott	R
Grubb, W. B.	Scott	R	White, Edward G.	Lagrange	R
Hughes, William	Lima	R	Younkins, J. W.	Walcottville	R

Regular, 21; Homeopathic, 2; Eclectic, 1.

Lake County.

Bacon, E. R.	Lowell	R	Merrill, Warren W.	Hammond	E
Bassett, G. R.	Hobart	E	Miller, H. F.	Hobart	R
BLISS, MALCOLM G.	Crown Point	E	Pratt, A. J.	Crown Point	R
Davis, John E.	Lowell	R	Pettibone, Harvey	Crown Point	R
Groman, Charles	Brunswick	H	Pettibone, Henry	Crown Point	R
Gerrish, A. A.	Lowell	E	Rudolph, Alois	Crown Point	R
Gordon, P. P.	Hobart	R	Seidler, Anthony	Dyer	R
Hill, Jesse L.	Lowell	R	Vincent, Alonzo W.	Dyer	E
Higgins, John	Crown Point	R	Vandewalker, J. G.	County	E
Johns, John	Dyer	R	Vandewalker, Mary	County	A
King, Charles W.	Lowell	E	Wood, James A.	Lowell	R

Regular, 13; Homeopathic, 1; Eclectic, 7; Accoucheur, 1.

Laporte County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Andrews, G. L.	Laporte.	R	Ludwig, C. H.	Laporte.	H
ANNIS, E. L.	Laporte.	R	Martin, J. S.	Rolling Prairie.	R
Birchim, J. B.	Hatcher's Mills.	R	Meyer, J. H. W.	Laporte.	R
Bowell, B. C.	Rolling Prairie.	R	Mullen, A. J.	Michigan City.	R
Brown, D. T.	Michigan City.	H	Mullen, —.	Michigan City.	R
Brunt, E. D.	Laporte.	A	Palmer, R. H.	Hanna Station.	R
Cole, E. C.	Michigan City.	H	Richards, Phoebe.	New Carlisle.	R
Crandall, R. O.	Laporte.	R	Rosengen, J. P.	Michigan City.	R
Crumpacker, D. S.	Union Mills.	R	Rogers, E. A.	Laporte.	R
Dakin, George S.	Laporte.	E	Rose, C. Landon.	Laporte.	R
Darling, Nelson S.	Laporte.	R	Rose, J. F.	Laporte.	N. S
Ellsworth, H. N.	Kingsbury.	R	Schultz, H.	Michigan City.	R
Fahnestock, A. A.	Laporte.	H	Schweiss, F. Joe.	Laporte.	N. S
Fahnestock, C. S.	Laporte.	H	Sharpless, P. D.	Rolling Prairie.	R
Fisher, W. H.	Wanatah.	R	Sherman, M. G.	Michigan City.	R
Fravel, Theophilus.	Westville.	R	Smith, A. M.	Hanna Station.	R
Freeman, B. B.	Westville.	H	Sovereign, L. H.	Michigan City.	R
Fuenfstueck, Mrs. M.	Laporte.	A	Sparr, —.	Hanna Station.	R
Godfrey, Walter M.	Michigan City.	R	Standiford, A. G.	Westville.	R
Hamarick, C. C.	Michigan City.	R	Stevens, M. A.	Laporte.	R
Haran, O.	Union Mills.	R	Tilden, J. E.	Wanatah.	R
Hollenbeck, B. W.	Westville.	E	Tillotson, A. G.	Michigan City.	R
Hoppe, Caroline.	Michigan City.	A	Tellefron, A., Mrs.	Michigan City.	A
Jones, R. W.	Union Mills.	R	Ward, M. M.	Wanatah.	R
Keen, L. S.	Laporte.	R	Ward, Nelson.	Wanatah.	R
Landon, C. P.	Michigan City.	A	Wilson, W. B.	Rolling Prairie.	R

Regular, 37; Homeopathic, 6; Eclectic, 2; Accoucher, 5; not stated, 2.

Lawrence County.

Bare, A. W.	Bryantville.	R	Lowder, G.	Springville.	R
Berry, A. F.	Payettville.	R	Martin, S. F.	Mitchell.	R
Briggs, J. T.	Mitchell.	R	McDonald, A. J.	Mitchell.	R
Bulkley, L. W.	Mitchell.	R	McIntire, E. S.	Mitchell.	R
Burton, John.	Georgia.	R	McLaughlin, O.	Bartlettville.	R
Burton, G. W.	Mitchell.	R	Newland, Benj.	Bedford.	R
Burton, W. A.	Mitchell.	R	Newland, J. W.	Bedford.	R
Dixon, H. C.	Tunnelton.	R	Pearson, J. C.	Mitchell.	R
Donica, T. N.	Fort Ritner.	R	Phipps, J. M.	Heltonsville.	R
Ellison, W. T.	Heltonsville.	R	Rairden, C. E.	Bedford.	R
Fambion, J.	Heltonsville.	R	Rairden, S. A.	Bedford.	R
Gunn, J. H.	Springfield.	R	Shorts, M.	Payettville.	R
Goodwin, A. L.	Mitchell.	E	Simpson, A.	Silverville.	R
Hornocker, S. D.	Silverville.	R	Smith, W. S.	Leesville.	R
Howard, S. B.	Tunnelton.	R	Smith, W. H.	Leesville.	R
Hanton, W. L.	Fort Ritner.	R	Stillson, Hamilton.	Bedford.	R
Kimberlain, H. L.	Fort Ritner.	R	Stillson, Joseph.	Bedford.	R
Judah W.	Guthrie.	R	Woodman, W. B.	Springville.	R
Kinser, Mahala.	Guthrie.	A	Yandell, Wm.	Huron.	R
Larkin, J. B.	Mitchell.	R	YOST, J. L. W.	Mitchell.	R

Regular, 38; Eclectic, 1; Accoucher, 1.

Madison County.

Armington, Chas. L.	Chesterfield.	R	Covertson, J. W.	Frankton.	R
Atherton, R. M.	Anderson.	H	Cook, Daniel.	Fishersburg.	R
Aldred John A.	Fishersburg.	R	Cranfill, M. L.	Summitsville.	N. S
Alexander, L. E.	Pendleton.	R	Chittenden, Geo. F.	Anderson.	R
Armfield, J. L.	Elwood.	R	Cullen, John C.	Anderson.	R
Brownback, O. W.	Pendleton.	R	Clark, T. J.	Summitsville.	N. S
Baker, Braxton.	Alexandria.	R	Carter, D. M.	Anderson.	R
Broadbent, O.	Anderson.	R	Cook, Ward.	Pendleton.	R
Beck, Thomas S.	Elwood.	R	Canaday, John E.	Anderson.	P. M
Beck, James.	Elwood.	R	DIVEN, CHAS. E.	Anderson.	R
Brown, Martin.	Elwood.	R	Dehority, James M.	Elwood.	R
Branch, C. N.	Anderson.	R	Davidson, G. N.	Pendleton.	P. M
Brickley, W. P.	Anderson.	P. M	Edwins, S. W.	Frankton.	R
Brown, O. S.	Fortville.	N. S	Fussell, Lundy.	Markleville.	R

Madison County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Garretson, J. M. . . .	Perkinsville . . .	R	Pugh, Joseph W. . . .	Alexandria . . .	R
Goodin, S. A. . . .	Rigdon. . . .	N. S	Perry, John W. . . .	Alexandria. . . .	R
Guisinger, J. S. . . .	Florida. . . .		Prezinger, J. R. . . .	Anderson. . . .	
Garretson, William . .	Perkinsville . . .	22	Pugh, Joseph	Alexandria. . . .	R
Huston, Anthony S. . .	Pendleton	P-M	Stewart, J.	Anderson. . . .	R
Hunt, John W.	Alexandria. . . .	R	Saunders, J.	Anderson. . . .	R
Hunt, William A. . . .	Anderson. . . .	R	Swallow, G. E. . . .	Summittville . .	R
Hockett, Z.	Anderson. . . .	H	Sigler, D.	Elwood.	R
Harter, J. H.	Anderson. . . .	R	Spann, B. F.	Anderson. . . .	R
Harter, W. P.	Anderson. . . .	R	Stephenson, Joseph . .	Pendleton	R
Hunt, T. M.	Summittville . . .	N. S	Suman, William	Anderson. . . .	R
Hougham, J. S.	Perkinsville . . .	E	Stone, Frank	Anderson	P-M
Hilligass, G. N. . . .	Lapelle.	R	Sharp, W. M.	Alexandria. . . .	R
Jones, H. E.	Anderson. . . .	R	Runyan, James F. . . .	Alexandria. . . .	R
Inlow, James E. . . .	Alexandria. . . .	R	Robertson, Wm. S. . . .	Anderson	N. S
Lewis, W. H.	Pendleton	R	Rogers, Ellen P. . . .	Pendleton	H
Levi, Charles	Anderson	N. S	Richwine, Lorenzo . . .	Perkinsville. . .	P-M
Morgan, W. J.	Gilman.	R	Wickersham, N. L. . . .	Anderson. . . .	R
Munsey, J. S.	Summittville . . .	N. S	Williams, Chas. F. . . .	Markleville. . . .	R
McTurnan, M. J. . . .	Independence . . .	R	Van Metre, I. N. . . .	Florida.	R
Oalden, Wilson. . . .	Ovid	R			

Regular, 49; Homeopathic, 3; Physio-Medico, 5; Eclectic, 1; not stated, 10.

Marion County.

Abbett, C. H.	Indianapolis . . .	E	Case, L. B.	Indianapolis . . .	E
Abbett, F. M.	Indianapolis . . .		Chambers, John	Indianapolis . . .	E
Abbett, Lawson	Indianapolis . . .	E	Chandler, G. E.	Indianapolis . . .	
Allen, J. Q.	West Newton . . .	R	Crist, D. Overly	Indianapolis . . .	E
Allen, Wesley	West Newton . . .	R	Clark, Americhie	Indianapolis . . .	
Allman, W. B.	West Newton . . .	R	Clark, William	Indianapolis . . .	
Anderson, J. E.	Indianapolis . . .		Clark, W. H.	Indianapolis . . .	
Anthony, E.	Indianapolis . . .	P-M	Collins, E. H.	Wellington. . . .	
Bacon, C. H.	Indianapolis . . .	R	Collins, W. F.	Indianapolis . . .	
Bailey, W. P.	Southport	R	Cominger, John A. . . .	Indianapolis . . .	E
Barnes, C. A.	Brightwood	R	Compton, J. A.	Indianapolis . . .	H
Barnes, H. F.	Indianapolis . . .	R	Cooke, George J.	Indianapolis . . .	E
Bates, J. W.	Broad Ripple . . .	R	Cory, A. F.	Oaklandon. . . .	E
Bedford, C. T.	Indianapolis . . .	P-M	Corliss, C. T.	Indianapolis . . .	H
Bell, Guido	Indianapolis . . .	R	Cress, J. B.	Indianapolis . . .	E
Bennerscheidt, Louise .	Indianapolis . . .		Culbertson, J. W. . . .	Indianapolis . . .	
Bennett, P. S.	Southport		Culbertson, W. D. . . .	Indianapolis . . .	
Beyer, Frederica	Indianapolis . . .		Cummins, T. J.	Indianapolis . . .	
Bigelow, J. K.	Indianapolis . . .	E	Collingham, J. J. . . .	Indianapolis . . .	
Bigger, R. H.	Indianapolis . . .	E	Curtis, G. L.	Indianapolis . . .	R
Bisbinger, John	Cumberland		Cunningham, H. S. . . .	Indianapolis . . .	R
Blane, H. G.	Indianapolis . . .		Darrach, G. M.	Cumberland . . .	
Blattner, F. R.	Indianapolis . . .		Daniels, Mrs. E. A. . . .	Indianapolis . . .	R
Black, L.	Indianapolis . . .		Daugherty, J. H. . . .	Irvington	R
Blu, U. L.	Indianapolis . . .		Davenport, T.	Insane Hospital .	
Boonligan, Emma	Indianapolis . . .		Davis, Samuel	Indianapolis . . .	R
Bower, J. V.	Millersville. . . .	E	Davis, T. T.	Indianapolis . . .	
Brandt, William E. . . .	Insane Hospital .	E	Davis, W. H.	Indianapolis . . .	R
Brayton, A. W.	Indianapolis . . .	E	Denke-Walter, W. . . .	Indianapolis . . .	
Brennan, E. J.	Indianapolis . . .	E	Dickerson, J. L.	Indianapolis . . .	
Bristol, A. S.	Indianapolis . . .		Duffield, J. T.	Indianapolis . . .	
Brooks, C. A.	Indianapolis . . .		Duncan, Hiram	Indianapolis . . .	
Brown, C. S.	New Bethel. . . .	E	Dunlap, J. M.	Indianapolis . . .	R
Brown, H. J.	Indianapolis . . .	E	Dunn, W. Max	Indianapolis . . .	
Brown, S. M.	Gallaudet.	E	Duzan, W. N.	Brownsburg . . .	R
Brown, S. M.	New Bethel. . . .	E	Earp, Samuel E.	Indianapolis . . .	R
Bryan, F. N.	Indianapolis . . .		Eastman, Joseph	Indianapolis . . .	R
Buell, Susan S.	Indianapolis . . .		Elbert, Samuel A. . . .	Indianapolis . . .	R
Bula, R. W.	Indianapolis . . .	E	Elder, E. S.	Indianapolis . . .	R
BUTTON, CANADA. . . .	Indianapolis . . .	E	Elmore, C. G.	Indianapolis . . .	
Butterfield, S. A. . . .	Indianapolis . . .	E	Elstun, W. J.	Indianapolis . . .	R
Butterfield, W. W. . . .	Indianapolis . . .		Farmers, S. W.	Indianapolis . . .	
Campbell, Anna B. . . .	Indianapolis . . .		Featherstone, J. R. . . .	Indianapolis . . .	R
Campbell, L. S.	Indianapolis . . .	E	Fehr, Louisa	Indianapolis . . .	
Cameron, John J.	Indianapolis . . .		Felder, Charles A. . . .	Indianapolis . . .	
Canfield, Mrs. O.	Indianapolis . . .		Felderman, Mrs. B. . . .	Indianapolis . . .	
Carson, L. O.	Trader's Point . .	E	Ferree, Frank M.	Indianapolis . . .	R
Carvin, J. M.	Indianapolis . . .	E	Ferree, S. I.	Indianapolis . . .	R

Marion County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Ferguson, Frank C.	Indianapolis	R	McNutt, W. Y.	Southport.	E
Field, M. H.	Indianapolis	R	McPheeters, A. C.	Indianapolis	E
Fisher, A. W.	Indianapolis	P-M	McShane, J. T.	Carmel	E
Fletcher, Calvin I.	Indianapolis	R	Mencham, C. A.	Acton.	E
Fletcher, Wm. B.	Insane Hospital	R	Mendennall, A. B.	Indianapolis	E
Foulds, Thomas L.	Indianapolis	R	Mendendall, E.	Indianapolis	E
Franklin, John	Indianapolis	R	Mendendall, E. J.	Indianapolis	E
French, Mattie J.	Indianapolis	H	Metcalf, Chas. N.	Indianapolis	E
Friedrich, C.	Indianapolis	A	Miller, E. P.	Indianapolis	E
Froetageh, J. N.	Indianapolis	R	Mills, Seth	Valley Mills	E
Funkhouser, D.	Indianapolis	R	Minich, James A.	Indianapolis	R
Garver, J. J.	Indianapolis	R	Monroe, V. H.	Indianapolis	R
Gaston, John M.	Indianapolis	R	Monroe, J. R.	Indianapolis	R
Gill, John	Indianapolis	R	Moore, S. H.	Indianapolis	R
Gill, Josephine	Indianapolis	R	Moore, Thomas	Indianapolis	R
Godfrey, John H.	Cumberland	R	Moore, W. G.	Indianapolis	R
Graves, C. M.	Glenn's Valley	R	Morgan, Wm. V.	Julietta	R
Graydon, R. G.	Southport	R	Morrison, Frank A.	Indianapolis	R
Griggs, O. B.	Bridgeport	R	Morrow, Jos. E.	Indianapolis	R
Grimes, Martha O.	Indianapolis	R	Neff, David	Indianapolis	R
Hadley, Evan	Indianapolis	R	New, George W.	Indianapolis	R
Haggart, David	Indianapolis	H	Newcomer, F. S.	Indianapolis	R
Haynes, J. R.	Indianapolis	H	Nesbit, J. A.	Castleton	R
Hasty, George	Indianapolis	P-M	O'Diele, F. H.	Cumberland	R
Harris, J. H.	Indianapolis	R	Oliver, D. H.	Indianapolis	R
Harvey, Thomas B.	Indianapolis	R	Oliver, John H.	Indianapolis	R
Haugh, J. A. E.	Indianapolis	R	Pantzer, Hugo O.	Indianapolis	R
Haughton, R. E.	Indianapolis	R	Parker, F. H.	Indianapolis	R
Haymond, W. S.	Indianapolis	R	Parsons, J. S.	Indianapolis	R
Hays, Wm. F.	Indianapolis	R	Partlow, J. W.	Indianapolis	R
Hail, Chas. B.	Indianapolis	R	Patterson, A. W.	Indianapolis	R
Heltman, J. K.	Oaklandon	R	Paxon, J. C.	Indianapolis	R
Hendricks, W. C.	Greenwood	R	Peachee, H.	Maywood	R
Henning, John A.	Clermont	R	Pearson, Chas. D.	Indianapolis	R
Herr, J. S.	Indianapolis	R	Perry, C. P.	Indianapolis	R
Hervey, J. W.	Indianapolis	R	Pettijohn, O. B.	Indianapolis	R
Hinshaw, T. M.	Nora	R	Pfaff, O. G.	Co. Asylum	R
Hodges, E. F.	Indianapolis	R	Pfitzen, E.	Ben Davis	R
Hoover, M. A.	Indianapolis	R	Pfitzer, Caroline	Indianapolis	P-M
Hoss, J. V.	Indianapolis	R	Pickerrill, G. W.	Indianapolis	R
Howard, Edward	Indianapolis	R	Pierce, A. S.	Indianapolis	R
Howard, Mrs. A. J.	Indianapolis	R	Pink, Herman	Indianapolis	R
Hubbard, W. H.	Indianapolis	R	Pledger, C.	Indianapolis	R
Jackman, Augustua	Indianapolis	R	Plowman, H.	Indianapolis	R
Jackman, Frank	Indianapolis	R	Porter, C. N.	Ben Davis	R
Jameson, Henry	Indianapolis	R	Porter, E. D.	Indianapolis	R
Jameson, P. H.	Indianapolis	R	Powell, B. B.	Indianapolis	R
Jeffries, W. E.	Indianapolis	R	Prunk, D. H.	Indianapolis	R
Johnson, W. P.	Indianapolis	R	Purdy, E.	Augusta	R
Jonas, Minnie	Indianapolis	R	Purdum, F. M.	Indianapolis	R
Jones, S. D.	Indianapolis	H	Purman, D. M.	Indianapolis	R
Kelly, Webb J.	Indianapolis	R	Ratliff, Barclay	West Newton	R
Kendricks, W. H.	Indianapolis	E	Raymond, Harry I.	Indianapolis	R
Kennedy, J. Y.	Acton.	R	Reade, J.	Traders Point	R
Kellogg, Mrs. M. A.	Indianapolis	R	Records, Samuel	Lawrence	E
Kern, Mrs. R.	Indianapolis	R	Redding, Jacob	Indianapolis	R
Kinchen, Amanda	Indianapolis	R	Redding, G. P.	Indianapolis	R
Kindleberger, W. H.	Indianapolis	R	Rehe, Bertha	Indianapolis	R
Kitchen, John M.	Indianapolis	R	Riddell, G. W.	Indianapolis	R
Krumrine, J. A.	Irvington	R	Robbins, Wesley	Indianapolis	E
Lampton, G. W.	Brightwood	R	Rohner, Margaret	Indianapolis	R
Lesh, D.	Indianapolis	P-M	Rooker, J. I.	Castleton	R
Levitt, P. C.	Acton.	E	Rose, F. W.	Indianapolis	R
Long, John B.	Indianapolis	E	Rowe, L. M.	Indianapolis	R
Long, Robert W.	Irvington	E	Runnels, Moses T.	Indianapolis	H
Light, K. C.	Broad Ripple	E	Runnels, O. S.	Indianapolis	H
Lockridge, Jno. E.	Indianapolis	E	Rusher, Sophia	Indianapolis	R
Lutz, George W.	Indianapolis	E	Sanders, J. W.	Acton	R
Lyle, Arthur W. T.	Castleton	E	Scarber, W. H.	Indianapolis	R
Manker, L.	Bridgeport	E	Schell, Emily	Indianapolis	R
Mapes, S. H.	Lawrence	E	Schmidt, Elizabeth	Indianapolis	R
Marsee, Joseph W.	Indianapolis	E	Schneider, Eliza	Indianapolis	R
Martin, F.	Indianapolis	E	Selman, A. G.	Indianapolis	R
Martin, W. F.	Indianapolis	E	Sevrin, J. S.	Indianapolis	R
Maxwell, Allison	Indianapolis	E	Shutt, Susan	Indianapolis	R
McDonald, W. B.	New Augusta.	E	Siddal, J. P.	Indianapolis	R
McGaughey, Sam'l	Acton.	E	Sigler, George A.	Indianapolis	R

Marion County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Silvey, H.	Castleton		Wright, Chas. E.	Indianapolis	R
Smith, A. J.	Indianapolis		Walters, T. J.	Indianapolis	R
Smith, J. N.	Indianapolis	R	Wands, Wm.	Indianapolis	R
Spees, George.	Glenn's Valley	R	Wands, A. O.	Southport	R
Spicer, J. W.	Acton	R	Waterman, L. D.	Indianapolis	R
Stein, F.	Indianapolis		Waters, John C.	Indianapolis	R
Stevens, T. M.	Indianapolis	R	Waters, P. J.	Indianapolis	R
Stewart, T. H.	Indianapolis		Watson, T. N.	Indianapolis	R
Stockton, Sarah	Indianapolis	R	Webb, J. C.	Indianapolis	
Stone, R. French	Indianapolis	R	Wechsler, H. A.	Indianapolis	R
Stocker, W. H.	Indianapolis	R	Wehrman, E. A.	Indianapolis	H
Stratford, A.	Indianapolis	R	Westholter, C.	Indianapolis	
Stratford, I. W.	Indianapolis	R	White, C. H.	Indianapolis	
Sutcliffe, J. A.	Indianapolis	R	White, H. M.	Indianapolis	
Swain, Fremont	Indianapolis	R	White, S. M.	Indianapolis	
Swain, Rachel	Indianapolis		White, W. G.	Indianapolis	
Taylor, Hervey	Indianapolis	R	Whitenack, J. H.	Glenn's Valley	R
Taylor, J. H.	Indianapolis	R	Wiley, Delaney.	Indianapolis	R
Thomas, A. J.	Indianapolis	R	Williams, Ransom T.	Indianapolis	
Thomas, E. C.	Haughsville	R	Williamson, J. W.	Indianapolis	P-M
Thomas, W. H.	Indianapolis	R	Wishard, George W.	Indianapolis	R
Thompson, D. A.	Indianapolis	R	Wishard, Wm. H.	Indianapolis	R
Thompson, J. L.	Indianapolis	R	Wishard, Wm. N.	Indianapolis	R
Thompson, W. C.	Indianapolis	R	Wishard, J. M.	Greenwood	R
Todd, Luther L.	Indianapolis	R	Wood, Levi	Indianapolis	
Tolley, W. V.	Indianapolis	R	Wood, Will F.	Haughsville	
Topham, T. W.	Indianapolis	R	Woodard, N. D.	Indianapolis	P-M
Uphaus, Anna M.	Indianapolis		Woodburn, J. H.	Indianapolis	R
Van Vorhis, F. J.	Indianapolis	R	Woodward, S. G.	Indianapolis	R
Wagner, T. A.	Indianapolis	R	Woolen, G. V.	Indianapolis	R
Walker, J. C.	Indianapolis	R	Woolfolk, T. J.	Indianapolis	R
Walker, J. B.	Indianapolis	R	Yoke, Charles	Bridgeport	R
Walker, I. C.	Indianapolis	R	Youart, Jos. D.	Indianapolis	
Wall, David	Clermont	R	Young, James	Indianapolis	

Regulars, 191; Homeopathic, 8; Eclectic, 6; Physio-Medico, 7; not reported, 104.

Marshall County.

Bailey, W. N.	Plymouth	R	Moody, J. W.	Bremen	R
Bower, Isaiah	Plymouth	R	Matchette, A. C.	Bourbon	R
Bell, John F.	Inwood	R	McCormick, John P.	Tyner City	R
Barton, T. A.	Plymouth	R	Mallett, I. T.	Tippecanoe	R
Baker, Daniel	Plymouth	I	Moore, C. W.	Tippecanoe	R
Brooke, J. E.	Plymouth	R	May, A. S.	Donaldson	R
Burket, W. W.	Tippecanoe	R	Neville, Rephaniah	Teegarden	R
Baure, Mrs. Lisetta	Bremen	R	Olde, W. M. B.	Bremen	R
Caillat, V.	Argos	R	Oyler, W. A.	Argos	R
Chapman, C.	Argos	R	Pocock, E. H.	Bourbon	R
Church, J. W.	Bremen	R	Parks, B. W.	Marmont	R
Dicks, James	Plymouth	R	Rea, O. A.	Tyner City	R
Deniston, J. M.	La Paz	R	Richardson, D. R.	Plymouth	R
Doke, John T.	Walnut	R	REYNOLDS, G. R.	Donaldson	R
Dietrich, W. A.	Bremen	R	Rickey, S. R.	Bourbon	R
Eaton, R. B.	Argos	R	Short, Robert B.	Argos	R
France, Samuel	Bourbon	R	Sutton, J. A.	Bremen	R
Gould, Samuel W.	Argos	R	Strange, William	Teegarden	R
Holtzendorf, A. C.	Plymouth	R	Simpson, S.	Tippecanoe	R
Hamilton, John J.	Lenkville	R	Tyrell, L. S.	Bremen	R
Herring, N. A.	Bremen	R	Tripp, Franklin	Plymouth	R
Johnson, Luther	Bourbon	R	Wils, E. W.	Plymouth	R
Knott, D. C.	Burr Oak	R	Wilson, J. H.	Marmont	R
Linn, T. T.	Bourbon	R	Wiseman, B. W. S.	Bremen	R
Modriker, Morris	Bremen	R	Wahl, G. F.	Bremen	R
Moore, Allen	La Paz	R	Younkman, A. B.	Bremen	R
McElrath, Marion F.	Sligo	R	Yelley, S. S.	Cavenders	R

Regular, 43; Homeopathic, 3; Eclectic, 6; Accoucheur, 1; Indian, 1.

Martin County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Armstrong, Mary	Loogootee	R	Plummer, I. N.	Shoals	R
Brattain, Stephen H.	Loogootee	R	Plummer, R. S.	Shoals	R
Batchelor, America	Shoals	R	Porter, A. W.	Loogootee	E
Campbell, John L.	Loogootee	R	Reeves, R. B.	Hickory	R
Doss, John A.	Shoals	P-M	Shirley, Henry W.	Shoals	R
Dollins, T. C.	Trinity Springs	R	Smith, Nancy	Shoals	A
Flags, Alpheus D.	Loogootee	H	Sims, J. N.	Dover Hill	E
Gray, William	South Martin	R	Solomon, John J.	Shoals	R
Hackler, P. M.	Shoals	A	Trueblood, J. C.	Loogootee	R
Hughes, Nancy	Shoals	A	Thomas, W. J.	Keck's Church	R
Malott, George F.	Trinity Springs	R	Wilson, Isom R.	Loogootee	R
McGregor, Rebecca	Dover Hill	A	Walker, James R.	Loogootee	R
McCollough, Littice	Trinity Springs	A	Walls, Georg W.	Shoals	R
McPherson, S. L.	Trinity Springs	R	Westhalfer, Rebecca	Dover Hill	A
McNabb, O. H.	Keck's Church	R	Winger, Elizabeth	Hillham	A
Oppett, E. A.	Loogootee	R	YENNE, CHAS. H.	Shoals	R

Regular, 19; Homeopathic, 1; Eclectic, 2; Physio-Medical, 1; not stated, 9.

Miami County.

Ager, A. U.	Perrysburg	R	LaDue, John C.	Denver	R
Armstrong, W. K.	Mexico	R	Litzenberger, O. P.	Xenia	R
Armstrong, A.	Miami	R	Marsh, Simeon S.	Peru	R
Brenton, W. H.	Peru	R	Meek, James A.	Bunker Hill	R
BLOOMFIELD, E. M.	Peru	R	Mendenhall, O. A.	Xenia	R
Black, Francis	Reserve	E	Maughmer, G. C.	Waupecong	R
Boggs, M. M.	Macy	E	McDowel, H. P.	Bunker Hill	R
Bellew, John C.	Chili	E	Pence, Rollin	Peru	R
Barnes, John	Macy	E	Peters, R. J. D.	Macy	R
Brady, C. C.	Gilead	E	Passage, H. V.	Peru	R
Baldwin, J. A.	Amboy	E	Proctor, R. G.	Miami	R
Coe, A. D.	Mexico	R	Rutherford, C. E.	Peru	H
Caple, A. Z.	Gilead	R	Ramsey, S. G.	Reserve	R
Campbell, E. L.	Miami	R	Ross, Robert	Bennetts	R
Cain, John C.	Bunker Hill	R	Robbins, J. Q. A.	Denver	R
Case, Augustus	Gilead	R	Ridenour, David	Chili	R
Drinkwater, E. H.	McGrawsville	R	Records, Isaac	Miami	R
Davis, S. H.	Bunker Hill	E	Rains, Anna	Macy	A
Davis, G. W.	Miami	R	Smith, R. W.	Xenia	E
Dennis, F. W.	Gilead	R	Smith, A. F.	Waupecong	R
Day, Thomas J.	Miami	R	Stafford, M. A.	Peru	H
Ellis, J. W.	Peru	E	Sutton, E. H.	Macy	R
Endesley, James F.	Denver	R	Spooner, Jared	Peru	E
Friermood, E. K.	Amboy	R	Smith, Alex C.	Bennetts	E
Friermood, S. M.	Santa Fe	R	Stafford, Isabel	Peru	H
Frets, J. C.	Deedsville	R	Spook, O. F.	Macy	R
Graham, B. R.	Peru	R	Watkins, F. H.	Peru	E
Gray, A. J.	North Grove	R	Wilson, W. T.	Bunker Hill	R
Higgins, C. B.	Peru	R	Ward, J. O.	Peru	R
Helm, J. H.	Peru	R	Wareham, J. W.	Gilead	R
Hjams, Thomas F.	North Grove	R	Wagner, Elizabeth	North Grove	A
Kimball, A. D.	Xenia	R	Waite, J. C.	Chili	R
Rimball, T. C.	Xenia	R	Wilson, J. S.	Macy	E
Kalbfish, A. H.	Peru	H			

Regulars, 35; Homeopathic, 4; Eclectic, 10; not reported, 18.

Monroe County.

Axtell, A. J.	Bloomington	R	Earle, John G.	Bloomington	E
Barrow, Daniel	Unionville	R	Ellis, Ira	Stilesville	E
Branan, Jonathan	Bryant's Creek	E	Farr, A. C.	Bryant's Creek	R
Brown, Mrs. Sarah	Bloomington	R	Gaston, James H.	Stanford	R
Bryan, Geo. W.	Bloomington	R	Goss, Mrs. Melinda	Dudley	H
Campbell, C. S.	Unionville	R	Grier, R. M.	Stinesville	R
Campbell, J. B.	Unionville	R	Griffith, Mrs. Esther	Bloomington	R
Cook, P. M.	Stanford	R	Harris, James M.	Ellettsville	R
Cox, Mrs. Charon	Unionville	H	Harris, Jno. E.	Bloomington	R
Deckard, Mrs. Cath	Guthrie	R	Harris, Jno. J.	Stinesville	R
Dodd, James	Clear Creek	R	Harris, Price	Ellettsville	R
Dodds, James F.	Bloomington	R	Humston, Sarah R.	Smithville	R

Monroe County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Lannpkins, Mrs. S.	Bloomington	E	Ryan, Joseph.	Bloomington	P-M
Lowder, L. T.	Harrodsburg	R	Simpson, Jno. P.	Harrodsburg	R
Maxwell, Jas. D., Sr.	Bloomington	R	Smith, Joseph T.	Allen's Creek	E
Maxwell, J. D., Jr.	Bloomington	R	Taylor, Jacob	Bloomington	P-M
McGee, Ben. A.	Bloomington	H	Tourner, John P.	Bloomington	E
McLahlan, C. D.	Harrodsburg	R	Warren, Jno. W.	Smithville	E
McPheeters, Jas. D.	Bloomington	R	WEIR, ROBT. M.	Bloomington	E
Oliphant, P. T.	Buena Vista	E	Whitted, Wm. L.	Bloomington	E
Payne, Mrs. Lucinda.	Bryant's Creek	R	Yoho, Barbara	Stanford	U
Rader, Geo. B.	Bloomington	P-M			

Regular, 28; Homeopathic, 3; Eclectic, 9; Physio-Med. 3.

Montgomery County.

Adkins, Benj. F.	New Ross	R	Jones, O. H.	Mace	R
Barnes, D. E.	Crawfordsville	R	Keegan, E. W.	Crawfordsville	R
*Bailey, R. H.	Crawfordsville	R	Keeney, H.	Linden	R
Ball, Zopherd	Waveland	R	*Keen, Daniel P.	Crawfordsville	R
Beatty, Jas. F.	New Market	R	Kelley, D. M.	New Ross	R
Berryman, Jas. A.	Potatoe Creek	R	*King, B. F.	New Ross	R
Black, Dayton R.	New Richmond	R	Layne, P. M.	Crawfordsville	E
Briggs, B. B.	Crawfordsville	R	Leech, Thos. F.	Crawfordsville	R
Brown, Alonzo	Alamo	R	Lippencott, E.	Crawfordsville	H
Brown, Israel	Alamo	R	Mahoney, J. C.	Ladoga	H
Brown, L. L.	Kirkpatrick	R	Miller, B. C.	Ladoga	R
Bowers, Homer	New Ross	R	Marsh, H. B.	Crawfordsville	O
Burroughs, W. M. H.	Shannondale	R	May, Willis L.	Crawfordsville	R
Claypool, Jas. S.	Waynestown	R	McMahan, J. S.	Darlington	R
Cowan, E. H.	Crawfordsville	R	Montague, F. L.	Crawfordsville	CS
Culver, Dudley M.	Whitesville	R	Morgan, S. B.	Crawfordsville	R
Crawfitt, O. C.	Waveland	R	Naylor, J. E.	Darlington	R
Currie, John H.	Darlington	R	Olinger, David F.	Brown's Valley	R
*Davis, Alex. O.	Crawfordsville	R	Olin, Leverett W.	Boston Store	R
Detchon, E.	Crawfordsville	R	Owsley, Will W.	Darlington	R
Detchon, Irwin A.	Crawfordsville	R	Phillips, C. A.	Pleasant Hill	R
Donaldson, J. W.	Ladoga	R	Purviance, Sam'l W.	Crawfordsville	R
Drake, Moses O.	Ladoga	R	Ristine, W. H.	Crawfordsville	R
Duncan, Jas. R.	Crawfordsville	E	Russel, Jas. P.	Waveland	R
Ellis, E. R.	Whitesville	R	Shannon, Jas. J.	Shannondale	R
Eddingfield, G. W.	Mace	R	Steele, W. H.	Waveland	R
Ensminger, J. H.	Crawfordsville	R	Steele, A. T.	Waveland	R
Ensminger, S. L.	Crawfordsville	R	Straughn, John W.	Parkersburg	R
Etter, Jas. R.	New Ross	R	Straughn, K. K.	Brown's Valley	R
Fitch, A. P.	Waynetown	R	Sutherland, J. F.	Ladoga	R
Fall, Chas. W.	Bowers	R	Snyder, Ira D.	Crawfordsville	H
Freeman, W. C.	Pleasant Hill	R	Smith, John W.	Crawfordsville	CS
Garver, Wm. R.	Orth	R	Snow, Wm. D.	Crawfordsville	R
Griffith, Martha E.	Darlington	R	Taylor, J. N.	Crawfordsville	H
Griffith, Thomas J.	Darlington	R	Thomas, C. M.	Crawfordsville	R
Green, Thos. C.	Waynetown	R	Thornberry, J. R.	Crawfordsville	R
GOTT, W. T.	Crawfordsville	H	Tilney, W. D.	Crawfordsville	R
Hamilton, A. N.	Waynetown	R	Tucker, Geo.	Bowers	R
Hillis, Jas. D.	Darlington	R	Vannuys, J. D.	Waveland	R
Hogsett, John W.	Mace	R	Waldon, C. H.	New Market	R
Hoover, Mary	Crawfordsville	R	Washburne, D. M.	New Richmond	R
Hopper, Milton D.	Darlington	R	Washburne, E. P.	Linden	R
Hurt, Wm. J.	Waynetown	R	Wilhite, Mary H.	Crawfordsville	R
Hutchings, Benj. F.	Crawfordsville	R	Whiteside, L. L.	Crawfordsville	R
Hyten, W. H.	Parkersburg	R	*Weir, D.	Crawfordsville	R
Irwin, S. S.	Crawfordsville	R			

Regular, 76; Homeopathic, 5; Eclectic, 2; Physio-Med. —; not reported, 8.

Morgan County.

Banta, W. H.	Eminence.	R	GREEN, ELIJAH V.	Martinsville	R
Blackstone, B. D.	Martinsville	R	Griffith, R. C.	Morgantown	R
Bradley, J. J.	Martinsville	R	Grim, J. G.	Waverly	R
Butler, W. H.	Morgantown	R	Hendrix, W. E.	Martinsville	R
Care, Hiram H.	Martinsville	R	Henson, Theo.	Wilbur	R
Davis, Mark	Monrovia	R	Hodges, W. N.	Martinsville	R
Farr, Uriah H.	Martinsville	R	Holman, E. C.	Martinsville	R
Gravis, Charles.	Martinsville	R	Jeffries, James	Monrovia	G R

*School not known.

Morgan County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Johnson, J. J. . . .	Martinsville . . .	R	Robison, H. C. . . .	Martinsville . . .	R
Jones, H. C. . . .	Hall. . . .	R	Rundell, S. W. . . .	Cope . . .	R
Jordon, Thomas . . .	Martinsville . . .	R	Schofield, S. W. . .	Martinsville . . .	R
Keiper, Geo. F. . . .	Alaska . . .	R	Seaton, Charles. . .	Hall. . . .	R
Kenedey, D. P. . . .	Martinsville . . .	E	Seaton, G. W. . . .	Hall. . . .	R
King, J. W. . . .	Waverly . . .	R	Seltridges, W. R. . .	Morgantown . . .	R
Knight, J. H. . . .	Paragon . . .	R	Shirley, S. T. . . .	Cope . . .	R
Lindly, C. M. . . .	Brooklyn . . .	R	Snoddy, J. M. . . .	Mooreville. . . .	R
Martin, Adeline . . .	Martinsville . . .	R	Stucky, T. E. . . .	Mooreville. . . .	R
McAllister, Alex. . .	Alaska . . .	R	Tarleton, R. H. . . .	Martinsville . . .	R
McNabb, Philip . . .	Mooreville. . . .	R	Tompson, T. L. . . .	Monrovia. . . .	R
Monical, Grant . . .	Brooklyn . . .	R	Tillford, B. W. . . .	Martinsville . . .	R
Nicholas, H. N. . . .	Paragon . . .	R	Tillford, Salem . .	Martinsville . . .	R
Perce, B. H. . . .	Mooreville. . . .	R	Vnn Sant, W. P. . . .	Brooklyn . . .	R
Potowff, W. A. . . .	Eminence. . . .	R	Vincent, J. K. . . .	Waverly . . .	R
Reagan, A. W. . . .	Mooreville. . . .	R	Wharton, J. O. . . .	Waverly . . .	R
Robbins, Clark . . .	Mooreville. . . .	E	Williamson, Ralph. .	Paragon . . .	R

Regular, 48; Homeopathic, —; Eclectic, 2; Physio-Med., —; not reported, —.

Newton County.

Abbott, A.	Logansport . . .	P-M	Patrick, Z E.	Sheldon, Ill. . . .	R
Beckner, James F. . .	Kentland. . . .	R	Peck, Thomas	Morocco	P-M
Caldwell, Samuel N. .	Pilot Grove . . .	H	Rainsford, George . .	Lake Village . . .	R
Chaffee, Jerome C. M.	Kentland. . . .	H	Ray, Mrs. M. T. . . .	Thayer	R
Copock, Anson. . . .	Goodland . . .	R	Recher, L. H. . . .	Morocco	R
Drake, Mrs. Theo. . .	Kentland. . . .	A	Roadruck, Mrs. Cath.	Morocco	A
HATCH, J. A. . . .	Kentland. . . .	R	Smith, E. G. . . .	Kentland. . . .	E
Humbert, Rebecca . .	Kentland. . . .	A	Smith, Geo. B. . . .	Foresman. . . .	R
Humston, Milton L. .	Goodland. . . .	R	Speck, Adolphus C. .	Sheldon, Ill . . .	R
Kenoyer, Jane F. . .	Kentland. . . .	A	Ticknor, William . .	Goodland. . . .	R
McCain, Richard C. . .	Kentland. . . .	E	Triplett, Chas. E. . .	Morocco. . . .	R
McClain, Joseph . . .	Iroquois, Ill . .	R			

Regular, 12; Homeopathic, 2; Eclectic, 2; Physio-Med., 2; not reported, 5.

Noble County.

Adair, William A. . .	Swan	R	Maloney, T. C. . . .	Avilla	R
Bartley, Robert W. . .	Wawaka	E	Moore, W. B. . . .	Meriam	R
Bassett, Wm. . . .	Kendallville . . .	H	Palmiter, C. . . .	Ligonier	R
Bowrie, D. R. . . .	Ligonier, Ind'n R&H	H	Pickett, C. M. . . .	Albion	H
Brown, J. S. . . .	Kendallville . . .	P-M	Robison, M. . . .	Wolf Lake	E
Cass, George W. . . .	Ligonier	R	Ruth, H. . . .	Kendallville . . .	E
Cessna, J. P. . . .	Avilla	R	Schlaughterbach, E. .	Ligonier	R
Depew, E. W. . . .	Wolf Lake	R	Seymour, C. A. . . .	Wawaka	R
Dunlap, Robert . . .	Kendallville . . .	E	Shobe, W. A. . . .	Ligonier	R
Ellis, C. F. . . .	Ligonier	H	Smith, Jacob F. . . .	Reme City	R
Gantz, John	Cromwell	E	Shock, H. W. . . .	Wolf Lake	R
Gard, James F. . . .	Ligonier	E	Silsby, Josephine . .	Kendallville . . .	E
GILBERT, JOS. L. . .	Kendallville . . .	R	Teal, Norman	Kendallville . . .	R
Green, W. . . .	Albion	R	Trader, J. S. . . .	Brimfield	R
Hays, John W. . . .	Albion	R	Tucker, H. G. . . .	Cromwell	R
Knopper, E. W. . . .	Ligonier	E	Williams, Nathan . .	Kendallville . . .	E
Kesler, R. S. . . .	Avilla	H	Williams, S. T. . . .	Kendallville . . .	R
Lemmon, S. W. . . .	Albion	R	Williams, Robert B. .	Rome City	R

Regular, 21; Homeopathic, 5; Eclectic, 9; Physio-Med. 1; not reported, 5.

Ohio County.

Alden, Thomas E. . . .	Rising Sun	R	Rockafellow, W. A. . .	Milton	E
Craig, W. H. . . .	Rising Sun	R	Seward, Jones	Rising Sun	R
Gillespie, William . .	Rising Sun	R	SPAULDING, JOHN . .	Hartford	R
Holbert, W. H. . . .	Bear Branch . . .	R	Stevens, G. A. . . .	Rising Sun	R
Lefresh, W. W. Mc. . .	Milton	R	Sullivan, W. H. . . .	Rising Sun	R
Payton, J. H. . . .	Rising Sun	R			

Regular, 10; Eclectic, 1.

Owen County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Belles, J. I.	Spencer	R	McDonald, D. H.	Quincy	R
Bridges, William	Quincy.	R	Minich, A. J.	Freedom	R
Coble, Jacob	Spencer	R	Mullinix, E. N.	Spencer	R
Cox, N. D.	Spencer	E	Mullinix, M. G.	Spencer	E
Erskine, A. C.	Hausertown	R	McKelvey, S. R.	Hausertown	R
Fisher, B. L.	Quincy	R	Naanes, G. W.	Arney	R
Figgs, John S.	Spencer	R	Osgood, M. G.	Gosport	E
Gilbert, William H.	Farmers' Station	R	Pierson, Allen	Spencer	R
Gontz, Thomas	Freedom	R	Richards, S. O.	Patrickburg	R
Goss, J. M.	Freedom	R	Ritter, C. S.	Gosport	R
Gray, O. F.	White Hall	R	Schell, F. A.	Spencer	E
Hester, U. A. V.	Arney	R	Sloan, John W.	Patrickburg	R
Jones, Jesse M.	Catact	R	Smith, John W.	Gosport	R
Keeper, George F.	Quincy	R	Stuckey, John M.	Gosport	R
Kennedy, John	Gosport	R	Symons, T. C.	Hausertown	R
Leonard, Rebecca	Catact	R	WILES, WM. V.	Spencer	R
Livingston, J. J.	White Hall	E	Williams, John A.	Patrickburg	R
Maddox, W. B. S.	Vandalia	R	Wooden, J.	Gosport	R
Medaris, J. H.	Catact	E	Wheeler, Thomas	Fredonia	R
Medaris, Stephen D.	Jordan Village	E	Young, William S.	Coal City	R
McCabe, H. H.	Coal City	E			

Regular, 31; Eclectic, 8; not stated, 2.

Orange County.

Baker, James	Millersburg	R	Lindley, Laban	Paoli	R
Bowles, L. S.	Paoli	R	Single, R. W.	Orleans	R
Boyd, Charles	Livonia	R	Ritter, John A., Sr.	Orangeville	R
Brent, William	Newton Stewart	R	Ritter, John A., Jr.	West Baden	R
Cartor, Theophilus	Orangeville	R	Ritter, Thomas	Orangeville	R
Ellis, William	Young's Creek	R	Ryan, William, Sr.	French Lick	R
Gilliatt, W. H.	Young's Creek	R	Ryan, William, Jr.	French Lick	R
Hazlewood, Green	Chambersburg	R	Sherrod, James H.	Paoli	R
Hazlewood, G. R.	Valeen	R	Sherrod, William F.	West Baden	R
Hazlewood, Lee	Valeen	R	Smith, E. W.	Newton Stewart	R
HON, U. H.	Paoli	R	Smith, James H.	Newton Stewart	R
Hon, Benton J.	Orleans	R	Still, A. C.	Syria	R
Hutcheson, R. H.	Newton Stewart	R	Story, Mary	French Lick	R
Laughlin, E. D.	Orleans	R			

Regulars, 22; not stated, 5.

Parke County.

Alvord, H.	Rockville	H	Larue, Benjamin F.	Portland Mills	R
Baldrige, John H.	Rosedale	E	Leannard, Mrs. C.	Rockville	R
Baldrige, John H.	Armiesburg	E	MORRIS, CHAS. C.	Rockville	R
Baldrige, Robert A.	Roseville	E	Martin, Alonso	Bellmore	R
Boyd, James M.	Annapolis	R	Mendenhall, B.	Bloomingsdale	R
Ball, James T.	Judson	R	McCune, Geo. W.	Montezuma	E
Black, R. C.	Catlin	R	Mendenhall, E. W.	Sylvania	R
Cross, Joseph F.	Rockville	R	Mull, William D.	Rockville	R
Campbell, Mrs. A. B.	Rockville	E	Morris, Aaron W.	Coloma	R
Caplinger, Chas. A.	Marshall	R	Mater, J. D.	Bridgton	R
DeVerte, Geo. T.	Howard	R	McKey, R. H. W.	Russell's Mills	R
Dare, John S.	Bloomingsdale	R	Osborne, Joseph H.	Portland Mills	R
Daly, George P.	Rockville	R	Odell, J. L.	Judson	E
Darrowach, Wm. P.	Hollandsburg	R	Rice, Harrison J.	Rockville	R
Garrigus, J. J.	Sylvania	R	Robinson, W. M.	Rosedale	R
Goldsbury, John A.	Annapolis	R	Thomas, W. D.	Rockville	R
Goss, Marian	Bellmore	R	Tucker, J. P.	Annapolis	R
Gilliam, Wm. H.	Rockville	R	Tomlinson, A. D.	Bloomingsdale	R
Harvey, John W.	Mansfield	R	Vanceave, E. L.	Catlin	R
Harvey, Isaac C.	Russell's Mills	E	White, S. S.	Judson	R
Hudson, B. F.	Montezuma	R	Williamson, W. N.	Sylvania	R
Holaway, Thos. R.	Rosedale	R	Williamson, A. A.	Russell's Mills	R
Jones, Norman L.	Waterman	R	Welsh, J. A.	Lona	R
Johnston, Marion	Bridgton	R	Wing, C. H.	Jessup	R
Kelley, —	Montezuma	R			

Regular, 37; Homeopathic, 1; Eclectic, 8; not stated, 3.

Perry County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Adye, George F.	Troy	E	Kellems, Rhoda	Branchville	A
Bemis, John S.	Cannelton	R	Lekenhaus, Mrs.	Tell City	A
Bacon, J. D.	Troy	R	Lee, J. H.	Rome	R
Bennett, J. B.	Derby	R	Lomox, Wm.	Bristow	R
Bruckner, Chas.	Tell City	E	Lucus, Isaac W.	Bangor P. O.	E
Cluth, William.	Tell City	R	Lucus, L. B.	Lilly Dale	E
Dalton, Mrs.	Tell City	A	Ladd, C. W.	Cannelton	R
Dowsing, John W.	Tell City	R	Marshall, W. C.	Cannelton	R
Ebersold, Marie	Tell City	A	Meeks, Louis	Branchville	R
Fullenwider, C. H.	Branchville	R	Miller, Lucinda	Don Juan	A
Foster, Hiram	Foster Ridge	R	MITCHELL, F. A.	Cannelton	R
Gerth, Fraceika	Troy	A	Myers, Josephus	Reno	R
Haynes, J. H.	Adyeville	R	Noble, Nancy	Ranger P. O.	A
Hendrickson, A.	Reno	R	Schellhouse, F. W.	Tell City	H
Herrmann, Ena M.	Tell City	A	Slaughter, J. B.	Ranger P. O.	R
Hix, William R.	Tell City	K	Taylor, J. J.	Don Juan	R
Howard, M. M.	Cannelton	R	Wedding, M. F.	Rome	R
Huffman, Michael	Leopold	E	Yagge, Caroline	Leopold	A
Fehlin, Caelia	Tell City	A			

Regulars, 21; Eclectics, 5; Homeopathic, 1; not stated, 10.

Pike County.

Adams, J. R.	Petersburg	R	Harrington, A. J.	Spurgeon	E
Agee, C. J.	Stendal	R	Harvey, M. C.	Petersburg	R
Ashley, Elizabeth	Arthur	R	Hawkins, John	Petersburg	R
Baysinger, T. W.	Oatsville	R	Hoover, P. N.	Stendal	R
Brust, Augusta	Stendal	R	Hombook, J. T.	Union	R
Eyers, Alex. R.	Petersburg	R	Holloway, William	Petersburg	H
Beardsley, J. M.	Winslow	R	Kime, John	Union	R
Camp, J. H.	Spurgeon	R	Kime, R. R.	Union	R
Camp, J. W.	Spurgeon	R	Kepley, Wm	Petersburg	E
Corn, Nathaniel	Augusta	R	Leslie, Alex. Sr	Petersburg	R
Cole, W. H.	Otwell	R	Oxby, Matilda	Spurgeon	A
Coleman, J. W.	Augusta	R	Pagen, Henry	Pikeville	R
Conrad, John	Augusta	R	Palmer, E. H.	Petersburg	R
Carleton, A. B.	Petersburg	E	Phillips R. W.	Union	R
Daniels, D. H.	Otwell	R	Reevis, P. L.	Otwell	R
De Tar, Charles	Winslow	R	Rhoads, A. H.	Pikeville	R
De Tar, David	Winslow	R	Schenck, H. F.	Oatsville	R
DUNCAN, J. B.	Petersburg	R	Slone, L. J.	Glezen	R
Drake, J. B.	Otwell	E	Smith, John T.	Glezen	R
Ferguson, J. W.	Pikeville	R	Taylor, J. W.	Survante	R
Ferguson, Thos.	Spurgeon	R	Thomas, M. C.	Petersburg	E
Godwin, John W.	Otwell	R	Woodward, L. E.	Winslow	R
Harris, R. W.	Delectable Hill.	R	Woorsley, M. L.	Arthur	R
Harrison, J. A.	Augusta	R			

Regular, 31; Homeopathic, 1; Eclectic, 5; not stated, 10.

Porter County.

Arnold, Geo. W.	Valparaiso	R	Letherman, A. B.	Valparaiso	R
Adkinson, Lyman	Kouts	R	Letherman, J. H.	Valparaiso	R
Blackston, J. K.	Hebron	R	LORING, D. J.	Valparaiso	R
Beer, Henry M.	Valparaiso	R	Marr, D. D.	Chesterton	R
Carson, J. C.	Hebron	R	Miller, E. G.	Hageman	R
Catron, W. A.	Valparaiso	H	McCarthy, J. F.	Valparaiso	R
Cootes, H. C.	Valparaiso	R	Newland, J. W.	Valparaiso	R
Darby, H. C.	Wheeler	R	Pagin, S.	Valparaiso	E
Green, H.	Chesterton	R	Pratt, S. R.	Hebron	R
Gray, W.	Tasinong	E	Riley, H. R.	Chesterton	R
Harriatt, J. V.	Valparaiso	R	Ryan, J. A.	Valparaiso	E
Houch, R. M.	Hebron	E	Sayles, M. F.	Valparaiso	H
Jones, E. J.	Hageman	R	Welsh, B. A.	Tasinong	R
Kellogg, H. C.	Valparaiso	E	Wood, O. J.	Hebron	R
Kester, J.	Boon Grove	E	Yohn, W. A.	Valparaiso	E

Regular, 20; Homeopathic, 2; Eclectic, 8.

Posey County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Allen, S. R.	Cynthiana	E	Krawsgill, D.	Wadesville	R
Brydon, J. F.	Griffin	E	Lester, T. R.	Cynthiana	R
Ballard, Silas	Poseyville	R	McDonlad, D.	New Harmony	R
Bitz, L. B.	Blairsville	R	McCoy, C. Mrs.	County	A
Bucklin, G. W.	New Harmony	R	Moby, N. M.-s	Griffin Station	A
Cary, W. P.	Mt. Vernon	R	Montgomery, D. B.	Cynthiana	R
Cosby, B. L.	Cynthiana	R	Neal, D.	New Harmony	R
Cross, Wm	Stewartsville	R	PEARSE, S. H.	Mt. Vernon	R
Cole, W. J.	Blairsville	R	Peckenpangh, G. R.	Mt. Vernon	R
Crawford, C. E.	Olivers	R	Powell, J. W.	Mt. Vernon	R
Dentsdorf, H. B.	Parker Settlement	R	Ramsey, D. C.	Mt. Vernon	R
Dickout, Mrs.	Hickory Branch	A	Rawlings, S. O.	New Harmony	R
Dixon, R. S.	West Franklin	H	Rutledge, J. C.	Poseyville	R
Eaton, John W.	Cynthiana	E	Rutter, John	Cynthiana	E
Elliott, C. Jr.	Solitude	R	Shultz, O. T.	Mt. Vernon	R
Elliott, C. Sr.	Solitude	R	Saalmann, Mrs. D.	Mt. Vernon	A
Flucks, Carl	St. Wendel	R	Smith, John A.	Mt. Vernon	A
Gregory, J. C.	Farmersville	R	Smith, E. S.	Farmersville	A
Goodwin, E. J.	Solitude	E	Sanders, C. H.	Carbons	H
Gettings, C. C.	Mt. Vernon	R	Smyth, Richard	Mt. Vernon	R
Gudgel, J. E.	Cynthiana	R	Spencer, E. V.	Mt. Vernon	
Hensler, Ernst	West Franklin	R	Stitt, Mary	New Harmony	
Harper, John	Mt. Vernon	R	Weever, J. B.	Mt. Vernon	R
Henderson, S. C.	St. Phillips	R	Welborn, G. W.	Stewartsville	R
Hicks, C.	Carbons	R	Williams, J. B.	Wadesville	R
Holton, Wm. M.	New Harmony	R	Woody, Albert	Poseyville	E
Huber, Catherine	Griffin Station	A	Welch, Walter	Mt. Vernon	R
Huston, J. C.	Grafton	R	Woods, J. E.	Mt. Vernon	R
Kelley, F. H.	Stewartsville	A	Wayland, Mrs. E.	County	A
Kisner, Ann E.	Mt. Vernon		Young, T. B.	Poseyville	R

Regulars, 38; Eclectics, 6; Homeopathic, 2; not stated, 14.

Pulaski County.

Brown, —	Francisville	R	Peters, Geo.	Star City	R
Buck, F. G.	Rosedale	R	Reynold's U. S.	Montery	R
Houston, C. F.	Pulaski	R	Stephens, —	Montery	R
James, B. F.	Medaryville	R	Thomas, F. B.	Winamac	R
Kelsey, Wm., Sr.	Monterey	R	THOMAS, J. J.	Winamac	R
Kelsey, Wm., Jr.	Monterey	R	Thompson, W. H.	Winamac	R
Kittenger, H.	Winamac	R	Thompson, G. W.	Winamac	R
Mattingly, Robt	Francisville	R	Vanderwallser, J. W.	Medaryville	R
Moss, D. F.	Winamac	R	Ward, J. W.	Pulaski	R
Osborn, James	Star City	R	Wright, W. G.	Winamac	R
Patterson, H. E.	Winamac	R			

Regular, 21.

Putnam County.

Allen, Chas. A.	New Maysville	R	Hawkins, E.	Belle Union	R
Baird, J. W.	Russellville	R	Heady, Jas. H.	Barnard	R
Batman, W. F.	Roachdale	R	Hopwood, W. C.	Greencastle	R
BENCE, G. W.	Greencastle	R	Hill, W. D.	Greencastle	H
Bellamy, Mary (col'd)	Greencastle	A	Knight, J. M.	Greencastle	E
Cline, L. C.	Bainbridge	R	Larue, Benjamin	Portland Mills	R
Colliver, R. T.	Bainbridge	R	Layman, D. W.	Putnamville	R
Cross, J. B.	Bainbridge	R	McNutt, Geo. F.	Putnamville	R
Cully, J. F.	Bainbridge	R	Morrison, J. F.	Greencastle	R
Devoir, H. V.	Greencastle	R	Mullinix, P.	Cloverdale	R
Dyer, H. J.	Cloverdale	R	Newgent, R. P.	Morton	R
Dunlavy, Ira E.	Fillmore	R	Osborne, J. H.	Portland Mills	R
Evans, Ezra B.	Greencastle	R	Pitchlyn, H. R.	Greencastle	R
Faris, E. G.	Clinton Falls	R	Peston, A. G.	Greencastle	R
Farrow, A. C.	Greencastle	R	Preston, Jeannette B.	Greencastle	R
Farver, G. W.	Groveland	R	Preston, J. B.	Cloverdale	R
Fisher, Samuel	Greencastle	R	Prichard, Louis	Cloverdale	E
Fordyce, J. H.	Russellville	R	Prichard, W. K.	Cloverdale	R
Fulton, Richard E.	Bainbridge	R	Purcell, W. M.	Reelsville	R
Hamilton, R. S.	Portland Mills	R	Robinson, J. H.	Fillmore	R
Hanna, L. M.	Greencastle	R	Robinson, J. B.	Fillmore	R
Harris, W. C.	Carpentersville	R	Rogers, Dudley	Greencastle	R

Putnam County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Rogers, H. C. . . .	Roachdale	R	Stockwell, G. W. . . .	Reelsville	R
Scott, Chas. E. . . .	Greencastle. . . .	R	Swindall, D. D. . . .	New Maysville . . .	R
Sherrill, Nancy C. .	Belle Union. . . .	A	Spurgeon, Frank . . .	Mt. Meridian . . .	R
Stallard, J. J. . . .	Russellville	R	Taylor, G. W. . . .	Greencastle. . . .	H
Stanley, L.	Fincaastle	R	Taylor, Mary J. . . .	Greencastle. . . .	R
Stevens, H. G. . . .	Raccoon	R	Young, S. A.	Morton	R
Slavens, John. . . .	Brick Chapel. . . .	R	Zane, T. M.	Manhattan	R
Smythe, G. C. . . .	Greencastle. . . .	R			

Regular, 52; Homeopathic, 3; Eclectic, 2; not stated, 2.

Randolph County.

Alexander, P.	Winchester	P-M	Hiatt, John A.	Ridgeville	R
Alexander, R. P. . . .	Winchester	P-M	Hinshaw, S.	Winchester	A
Bryson, A.	Deerfield	P-M	Huddleston, A. T. . .	Winchester	H
Baldwin, Geo.	Bloomingsport. . .	E	Hunt, H. O.	Trenton	R
Bartholomew, C. G. .	Union City	R	Hunt, Pleasant. . . .	Farmland	P-M
Beverly, J. E.	Winchester	R	Keener, Jas. M. . . .	Farmland	R
Berry, J. S.	Spartansburg . . .	R	King, Jas. V.	Castle	R
Blair, Jas. S.	Lynn	R	Leatherman, J. H. . .	Union City	P-M
Boasworth, Rich. . .	Winchester	R	MARKLE, JOHN E. . .	Winchester	R
Botkins, John W. . .	Winchester	P-M	Marquis, W. H. . . .	Batavia	P-M
Botkins, Thos. W. . .	Unionsport	P-M	McFarland, N.	Union City	P-M
Brewbaker, Eda . . .	Deerfield	A	Morgan, Robert H. . .	Spartansburg . . .	R
Bruce, G. W.	Winchester	R	Nixon, J.	Farmland	R
Conti, J.	Deerfield	R	Owen, J. K.	Harrisville	R
Carver, J. M.	Winchester	P-M	Parsons, R. J.	Union City	P-M
Cavins, Elizabeth . .	Farmland	A	Proctor, Jeremiah . .	Union City	P-M
Chenoweth, F. A. . .	Winchester	R	Purcell, John	Union City	R
Chenoweth, Nelson . .	Windsor	R	Reeves, John L. . . .	Union City	R
Chenoweth, John T. .	Winchester	R	Rommel, Serand . . .	Winchester	A
Coggeshall, W. R. . .	Bloomingsport. . .	R	Keynolds, F. A. . . .	Ridgeville	P-M
Commons, Wm.	Union City	R	Rickard, C. A.	New Pittsburg . . .	P-M
Cox, Cyrus	Lynn	R	Robbins, Westley . .	Trenton	P-M
Dick, E. P.	Union City	P-M	Rogers, Aaron G. . . .	Parker	R
Davis, L. N.	Farmland	R	Ruby, S. B.	Union City	R
Evans, C.	Union City	R	Shoemaker, W. J. . .	Ridgeville	R
Evans, Joseph J. . . .	Winchester	R	Smith, Calvin	Farmland	E
Faggler, C. M.	Fairview	R	Smith, J. R.	Winchester	R
Fahnestock, J. H. . .	Union City	P-M	Smith, W. G.	Winchester	R
Farquahar, Allen H. .	Ridgeville	R	Stewart, W. G.	Union City	R
Ferguson, David . . .	Union City	R	Thompson, Geo. W. . .	Union City	R
Franks, H. P.	Losantville	R	Tisor, Wm. R.	Rural	R
Grabill, J. D.	Union City	P-M	Trent, Isaac N.	Losantville	R
Hamilton, R. W. . . .	Lynn	R	Williamson, Jas. H. . .	Union City	R
Harrison, H.	Union City	R	Wimer, William . . .	Union City	P-M
Hiatt, C. C.	Ridgeville	R	Yergin, H. H.	Union City	R

Regular, 43; Homeopathic, 1; Eclectic, 2; Physio-Medico, 18; school not stated, 1.

Ripley County.

Abbott, June	South Milan	E	Lamb, Jas. F.	Cross Plains	E
Abbott, Maria	Milan.	E	Miller, R. H.	Friendship	R
Anderson, James. . .	Versailles	R	Miller, A. G.	Elrod	E
Burns, Mahala C. . .	Lock Spring's P.O. A	A	Olmstead, R. T. . . .	Rexville	R
Brenton, John T. . . .	Osgood	A	Parsons, George E. . .	Rei	R
Brown, Charles M. . .	New Marion	A	Ratcliff, Jas. F. . . .	Morris	R
Cass, C. H.	Holton	E	Redlon, Daniel. . . .	Pierceville	R
Clark, Freeman	Rei	R	Roberts, Jerry	Holton	R
Davis, J. R.	Morris	R	ROBINSON, JNO. M. . .	Versailles	R
Freeland, John P. . .	Summan	R	Schlosser, Geo. F. . .	Summans	R
Freeman, E. D.	Osgood	R	Schwartz, Annie. . . .	Napoleon.	R
Given, T. E.	Elrod	R	Sproessing, Amelia. .	Versailles	R
Hess, John N.	St. Magdalene . . .	R	Sweezy, John M. . . .	Cross Plains	E
Hicks, Bruce R. . . .	Napoleon	P-M	Van Antwerp, B. F. . .	Honeys Corners . .	R
Hicks, John C.	Napoleon	P-M	Vance, Julia A.	Morris	R
Horton, William . . .	Pierceville	R	Vest, M. C.	Linconville. . . .	R
Jerman, S. W.	Batesville	R	Vincent, Edw. B. . . .	Summan	R
Jones, John G.	Versailles	R	Young, Robt. W. . . .	South Milton. . . .	R
Joseph, Alex. F. . . .	Napoleon.	R	Yitake, Joseph	Napoleon.	R

Regulars, 20; Eclectic, 6; Physio-Medical, 2; not stated, 10.

Rush County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Arnold, John . . .	Rushville . . .	R	Megee, Wm. N. . .	Occident . . .	R
Arnold, W. W. . .	Rushville . . .	R	McMahan, S. W. . .	Rushville . . .	R
Axline, John A. . .	Raleigh . . .	R	McGuaghey, J. E. . .	Arlington . . .	R
Barnum, W. E. . .	Manilla . . .	R	Newlin, S. C. . .	New Salem . . .	R
Dillon, J. C. . .	Rushville . . .	R	PUGH, W. M. A. . .	Rushville . . .	R
Drake, F. J. . .	Carthage . . .	R	Parsons, C. H. . .	Rushville . . .	R
Elliot, H. H. . .	Glenwood . . .	R	Ross, L. G. . .	Raleigh . . .	R
Gilbert, C. H. . .	Rushville . . .	H	Riley, S. H. . .	Milroy . . .	E
Graham, A. E. . .	Richland . . .	R	Rogers, W. R. . .	Milroy . . .	E
Green, J. W. . .	Arlington . . .	R	Rucker, Thomas H. . .	Arlington . . .	R
Green, J. O. . .	Arlington . . .	R	Smith, W. H. . .	Rushville . . .	R
Green, Lot . . .	Occident . . .	R	Spurrier, J. H. . .	Rushville . . .	R
Graham, Frank . .	Rushville . . .	R	Spencer, E. T. . .	Manilla . . .	E
Hargrove, W. S. . .	New Salem . .	R	Sexton Marshall . .	Rushville . . .	R
Hackleman, F. G. .	Rushville . . .	R	Sexton, J. C. . .	Rushville . . .	R
Inlow, J. J. . .	Manilla . . .	R	Sparks, J. C. . .	Carthage . . .	R
Johnston, W. A. . .	Raleigh . . .	E	Thomas, S. B. . .	Milroy . . .	R
King, F. B. . .	Homer . . .	E	Teris, J. L. . .	Moscow . . .	R
Linn, H. G. . .	Rushville . . .	H	Vannuys, D. H. . .	Falmouth . . .	R
Moffett, John . . .	Rushville . . .	R	Welliver, J. E. . .	Rushville . . .	H
Megee, Omer . . .	Rushville . . .	R			

Regular, 34; Homeopathic, 3; Eclectic, 4.

Scott County.

Bailey, H. W. . .	Scottsburg . . .	R	NICKLES, J. M. . .	Scottsburg . . .	R
Blocha, Jesse B. . .	Holman . . .	R	Passwater, Jno. G. . .	Lexington . . .	R
Casey, H. R. . .	Austin . . .	R	Rodgers, Sion . . .	Austin . . .	R
Davis, Solomon . .	Lexington . . .	R	Sasver, Jno. A. . .	New Frankfort . .	R
Green, W. E. . .	Lexington . . .	E	Smith, Milton W. . .	Scottsburg . . .	R
Haughland, M. E. .	Vienna . . .	R	Stage, W. B. . .	Vienna . . .	R
Hobbs, Jane . . .	Little York . .	A	Watson, Jno. W. . .	Scottsburg . . .	R
Lothrop, A. H. . .	Lexington . . .	R			

Regular, 13; Eclectic, 1.

Shelby County.

Abornathy, A. A. . .	Morristown . . .	B	Maddux, J. F. . .	Shelbyville . . .	E
Adams, J. M. . .	Noah . . .	R	McCain, F. M. . .	Waldron . . .	R
Bolby, J. B. . .	Noah . . .	R	McGaughy, D. S. . .	Morristown . . .	R
Carter, J. . .	Morristown . .	R	McFadden, W. G. . .	Shelbyville . . .	R
Compstock, J. . .	Marietta . . .	R	Perry, J. . .	Shelbyville . . .	R
Compstock, H. . .	Marietta . . .	R	Perry, C. P. . .	Gwynnville . . .	R
Conley, H. M. . .	Flat Rock . . .	R	Parish, J. W. . .	Shelbyville . . .	R
Craig, C. M. . .	Mt. Auburn . .	R	Pierson, W. M. . .	Fountaintown . .	E
Drake, I. H. . .	Shelbyville . .	R	Robertson, C. A. . .	Freeport . . .	R
DRAKE, M. . .	Shelbyville . .	R	Robertson, J. . .	Fairland . . .	R
Daily, G. W. . .	Freeport . . .	R	Raynes, R. D. . .	Blue Ridge . . .	R
Floyd, R. M. . .	Shelbyville . .	R	Robbins, J. P. . .	Shelbyville . . .	R
Fleming, G. W. . .	Shelbyville . .	R	Richards, E. J. . .	Fountaintown . .	R
Green, W. F. . .	Shelbyville . .	R	Rubush, T. . .	Soudon . . .	R
Gordon, W. B. . .	Freeport . . .	R	Salsberry, S. H. . .	Morristown . . .	E
Gilmore, M. R. . .	Freeport . . .	R	Sanford, J. H. . .	Shelbyville . . .	R
Inlow, I. W. . .	Blue Ridge . . .	R	Snyder, J. W. . .	Fairland . . .	R
Jenkins, J. R. . .	Waldron . . .	R	Stewart, J. K. . .	Fairland . . .	R
Jones, T. S. . .	Flat Rock . . .	R	Stewart, J. B. . .	Marietta . . .	E
Kennedy, T. C. . .	Shelbyville . .	R	Smith, H. . .	Smithland . . .	E
Knapp, . . .	Shelbyville . .	H	Stuckler, S. L. . .	Boggs town . . .	E
Keeling, W. W. . .	Sulphur Hill . .	E	Tull, E. M. . .	Fairland . . .	R
Kennedy, S. A. . .	Winterwood . .	R	Trees, I. W. . .	Smithland . . .	R
Kennedy, S. A. . .	Shelbyville . .	R	Washburne, R. U. . .	Waldron . . .	R
Lucas, J. N. . .	Shelbyville . .	H	Winters, G. G. . .	Shelbyville . . .	H
Leuch, E. W. . .	Shelbyville . .	E	Whetzel, F. F. . .	Morristown . . .	R
Lowder, J. . .	Carrollton . . .	E	Wolf, J. G. . .	Morristown . . .	R

Regular, 35; Homeopathic, 3; Eclectic, 9; Botanic, 1; not stated, 6.

Spencer County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Ambrose, H. L.	Rockport	R	Killiam, J. L.	Eureka	R
Anderson, E. M.	Huff	R	Lilliepage, S. B.	Rockport	R
Ashley, F. W.	Eureka (deceased)	E	Lang, I. W.	Rockport	R
Banks, H. G.	Grandview	E	McCoy, G. W.	Spring Station	R
Bennett, A. T.	Newtonville	R	McCoy, L. H.	Lake P. O.	R
Bonwasser, Dora	Rockport	A	McGarvey, Jno.	Oakland	E
Bryant, Jas. H.	Gentryville	R	McKassay, Jno.	Gentryville	E
Daley, T. J.	Midway	R	Medcalf, A. D.	Dale	R
Daily, J. M.	Rockport	R	Milner, J. L.	Rockport	R
Ehrman, E. D.	Rockport	R	Murray, R. W.	Rockport	R
Ely, Jno. E.	Midway	R	Myler, Jno. M.	Eureka	R
Ginglebach, E. E.	St. Meinrad	H	Reavis, W. J.	Lake P. O.	R
HACKLEMAN, F. M.	Rockport	E	Roenig, Magdalene	Rockport	A
Hammond, D. M.	Grandview	R	Smith, J. R.	Spring Station	E
Harrison, G. P.	Patronville	R	Taylor, Louis	Gentryville	A
Hartley, H. H.	Enterprise	H	Turpin, James	Rockport	E
James, J. B.	Buffalo	E	White, Arthur	Rockport	R
John, B. B.	Newtonville	E	White, Jno. T.	Grandview	R
Johnson, T. J.	Dale	R	Worsley, Geo.	Grandview	R

Regular, 24; Eclectic, 8; Homeopathic, 2; not stated, 3.

Starke County.

Boner, M. C.	Knox	R	Henderson, A. H.	Knox	R
Boner, S. S.	Knox	R	Hunt, Z. P.	Ora	R
Bradford, Sarah	Knox	R	Perry, William	North Judson	R
Burson, A. H.	Hamlet	R	SHATTO, H. L.	Knox	E
Conner, L.	Knox	R	Taylor, Lydia	Hamlet	R
Garner, Henry	Knox	R	Wier, William H.	North Judson	E
Glazebrook, L. Dow	San Pierre	R			

Regulars, 10; Eclectic, 2; not stated, 1.

St. Joseph County.

Applegate, Chas. H.	South Bend	R	Kam, Anna	Mishawaka	
Arlington, J. W.	Walkerton	R	Lang, Anna	Mishawaka	
Baker, O. W.	Mirth		Mauer, Jno.	South Bend	
Blade, P.	South Bend		McAlister, E. W.	South Bend	R
Borough, J.	Mishawaka	H	McCool, A. W.	Walkerton	
Brown, J. R.	Sumption Prairie	R	McCool, T. T.	New Carlisle	
Buchelder, I. J.	Mirth	R	Meyers, C. H.	South Bend	R
Butterworth, W. W.	Mishawaka	R	McGill, John A.	South Bend	R
Campbell, A. S.	North Liberty		Miller, J. C.	South Bend	R
Carpender, G. W.	South Bend	R	Miller, Martin	Walkerton	H
Cassedy, J.	South Bend	R	Mitchell, Mrs. Hanna	South Bend	
Charlenworth, D. M.	New Carlisle	R	Moore, Chas. W.	Walkerton	R
Clark, Eli E.	Mishawaka	R	Moore, John	Lakeville	R
Daugherty, C. A.	South Bend	E	Moore, Robert	Lakeville	R
Davis, Josephine	New Carlisle	R	Moore, M. L.	South Bend	R
Dayton, Daniel	South Bend		Pagin, Lewis	South Bend	
Denslow, E. H.	South Bend	P-M	Partridge, J. M.	South Bend	H
Denslow, Jas. G.	South Bend	P-M	Peffeniffer, J.	South Bend	R
Dunning, L. H.	South Bend		Pierce, Wm. W.	Osceola	R
Drollinger, E. M.	South Bend	E	Phillips, Louisa	Mishawaka	
Ellmore, Chas. G.	South Bend		Russell, Clara L.	Mishawaka	
Endley, Jas. F.	Walkerton	E	Richmond, C. M.	Walkertown	
Ellmore, J. Q.	South Bend		Rupp, P. E.	South Bend	R
Fant, E. E.	Lukeville	E	Shafer, G. J.	North Liberty	E
George, F. W.	South Bend	E	Shaw, Joseph	Terre Coupee	
Greene, Jas. B.	Mishawaka	R	Shwartz, Frances J.	Mishawaka	
Grimes, James F.	Mishawaka	E	Smith, F. W.	Walkertown	R
Grimes, J. H.	Mishawaka	E	Sawyer, F. M.	Lakeville	E
Ham, Levi J.	South Bend	P-M	Sturgis, D. B.	South Bend	R
Hanford, Wm. H.	South Bend	P-M	Sturgis, M. S.	South Bend	R
Harris, Joel	New Carlisle	E	Sack, John C.	South Bend	R
HITCHCOCK, W. W.	South Bend	R	Ullery, Stephen H.	South Bend	E
Hool, Joseph, Sr.	South Bend	I. D	Underwood, Mrs. C. H.	South Bend	E
Huntsinger, A.	Mishawaka	E	Van Pelt, Ryan	Mishawaka	R
Harris, Robert	South Bend	R	Van Riper, Abram	New Carlisle	R
Jackson, Mary	Walkerton	E	Varier, J. A.	North Liberty	R
Jewell, Mary	Woodland		Wagner, A. L.	South Bend	R
Kelner, A. M.	Mishawaka	E	Wickham, W. A.	South Bend	E
Kittring, J. A.	South Bend	R	Underworth, H. A.	Walkerton	
Kilmer, S. L.	South Bend	R			

Regular, 36; Homeopathic, 4; Eclectic, 18; Physio-Medical, 3; Indian Doctor, 1; not stated 17.

Steuben County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Abbott, Lyman . . .	Fremont . . .	R	Morrison, T. Ray . .	Hudson . . .	R
Brown, D. N. E. . .	Hamilton . . .	E	Moore, John H. . .	Angola . . .	E
Biery, T. E. . . .	Pleasant Lake . .	R	Miller, W. H. . . .	Fremont . . .	R
Brown, J. C. . . .	Turkey Creek . .	R	McNabb, T. B. . . .	Fremont . . .	R
Blue, J. B.	Flint	R	Ransbury, Martin V .	Salem Centre . .	R
Byall, H. M. . . .	Metz	R	Robinson, E. S. . .	Fremont . . .	E
Cameron, J. F. . .	Hamilton . . .	R	Simmons, E. B. . .	Fremont . . .	R
Clay, M. T. . . .	Salem Centre . .	E	Schaeffer, Sarah A .	Fremont . . .	R
Crain, M. F. . . .	Angola	E	Stauffer, E. R. . .	Metz	R
Eastman, A. . . .	Jamestown . . .	E	Upton, Hugh	Turkey Creek . .	R
Fuller, S. H. . . .	Pleasant Lake . .	R	Waller, W. H. . . .	Angola	R
Goodale, C. M. . .	Metz	R	WOOD, H. D. . . .	Angola	H
Griffin, D. B. . .	Angola	R	Williams, Thos. B .	Angola	R
Hagerty, J. L. . .	Fremont . . .	R	Wood, T. F. . . .	Metz	R
Hamilton, — . . .	Hudson	R	Wood, Sol. A. . . .	Angola	R
Keeslar, George . .	Orland	R	Weicht, Wm. C. . .	Angola	H
Leas, Emanuel R . .	Angola	E	Wallace, James F .	Orland	R
Lewis, J. D. . . .	Flint	R	Wickham, J. F. . .	Metz	R

Regular, 26; Eclectic, 6; Homeopathic, 1; not stated, 3.

Sullivan County.

Anderson, Milton D .	Cass P. O. . . .		Lowder, C. M. . . .	Dugger	R
Ballance, Joseph . .	Pleasantville . .		Mason, T. A. . . .	New Lebanon . .	R
Bedwell, T. S. . . .	Pleasantville . .		Mathews, J. M. . .	Carlisle	R
Bennett, J. H. . . .	Farmersburg . .	R	McDowell, Jas . . .	Pleasantville . .	R
Briggs, Chas. F. . .	Paxton	R	McDowell, L. C . .	Pleasantville . .	R
Brown, N. H. . . .	Cass P. O. . . .		Osborn, S. D. . . .	Shelburn	R
CROWDER, R. H. . .	Sullivan	R	Parker, John . . .	Farmersburg . .	R
Cushman, A. . . .	Graysville . . .	R	Peyton, H. H. . . .	Paxton	R
Crawley, J. B. . . .	Sullivan	R	Phillips, John L . .	Sullivan	R
Delashmut, E. V. . .	Shelburn	R	Plew, Geo. F. . . .	Hymeria	R
Dennison, E. D. . .	Carlisle	R	Plew, John H. . . .	Fairbanks . . .	R
Duncan, Wm. S. . .	Farmersburg . .	R	Robbins, Wm. M . .	Sullivan	R
Durham, John L. . .	Graysville . . .	R	Rusk, J. M. . . .	Carlisle	E
Fleming, Wm. A. . .	Pleasantville . .	R	Saunders, J. D. . .	Cass	
Footo, Ziba H. . . .	Farmersburg . .	R	Saunders, J. F. . .	Sullivan	R
Givens, C. C. . . .	Lewis P. O. . . .		Sharplee, Henry . .	Fairbanks . . .	R
Harper, H. F. . . .	Merom	R	Stone, W. O. . . .	Narrows	
Harper, J. B. . . .	Merom	R	Taylor, J. T. S. . .	Dugger	E
Harper, J. A. . . .	Shelburn	R	Thompson, J. J. . .	Sullivan	R
Higbee, Geo. W. . .	Sullivan	H	Thrawls, Raphael T .	Hymeria	R
Higbee, John L. . .	Sullivan	H	Temple, N. W. . . .	Sullivan	R
Hinkle, J. R. . . .	Sullivan	R	Vanceleve, R. H. . .	Farmersburg . .	R
Hinkle, J. S. . . .	Sullivan	R	Walters, J. A. . . .	Paxton	R
Humphreys, Wm. H .	Merom		Whalen, R. M. . . .	Carlisle	R
Jenkins, R. L. . . .	Carlisle	R	Weir, A. N. . . .	Sullivan	R
Lisman, John W. . .	New Lebanon . .		Weir, S. D. . . .	Sullivan	R
Lisman, Wm. A. . .	Carlisle	R	Young, James N. . .	Carlisle	R

Regulars, 34; Eclectics, 2; Homeopathic, 2; not stated, 16.

Switzerland County.

Cheerer, E. M. . . .	Queerous Grove .	R	Jameson, J. A. . . .	Patriot	R
Clark, R. E. . . .	Mt. Sterling . . .	R	Langedale, J. M. W .	Florence	R
Costello, J. F. . . .	Vevay	R	McMillen, William .	Sugar Branch . .	R
CRAIG, ALBERT G .	Vevay	R	Olcott, W. S. . . .	Patriot	R
Culbertson, Scott .	Moorefield . . .	R	Ormsly, A. P. . . .	Vevay	R
Elfers, John	Sugar Branch . .	R	Ruter, R. R. . . .	Patriot	R
Freeman, William .	Vevay	R	Sage, P. S. . . .	Vevay	R
Griffith, Irwine . .	Mt. Sterling . . .	R	Shadday, J. H. . .	Vevay	R
Griffith, T. J. . . .	Vevay	R	Simpson, R. G. . .	Bennington . .	R
Hammond, Eli . . .	Center Square . .	R	Vanosdol, C. L. . .	Allensville . .	R
Holbert, W. M. . . .	Bear Branch . . .	R	Vanosdol, J. W. . .	Allensville . .	R
Hewett, G. W. . . .	Markland	R	Vanpelt, G. W. . .	Moorefield . . .	R
Holland, P. C. . . .	Vevay	R	Woollen, L. J. . . .	Vevay	R

Regulars, 26.

Tippecanoe County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Anderson, J. H.	Colburn.	R	Moffit, William R.	Lafayette	R
Armstrong, Wm. P.	Lafayette	H	Morgan, Wm. L.	Lafayette	R
Baker, Joseph H.	Stockwell	R	Ogburn, Job	Montmorency	R
Baker, Mary A.	Lafayette.	A	O'Farrell, Frank.	Lafayette	R
Baker, Moses	Stockwell.	R	O'Farrell, R. M.	Lafayette	R
Bates, S. L.	Colburn	R	Orth, William M.	Lafayette	I
Baugh, S. L.	Farmer's Institute	R	Osburn, George A.	Lafayette	I
Beasley, Geo. F.	Lafayette.	R	Osburn, Margaret A.	Lafayette	I
Boyd, B. H.	Lafayette.	I	Perkins, E. E.	Battle Ground	I
Burke, U. A.	Lafayette.	R	Persin, John M.	Monitor	R
Burns, G. W.	No. 10	I	Powers, E. D.	Lafayette	R
Cady, W. F.	Lafayette.	R	Presly, N. W.	Battle Ground	I
Charles, R. E.	West Point.	R	Prettyman, J. T.	Stockwell	I
Cowdry, J. S.	Lafayette.	E	Pyke, A. D.	Romney	R
Crider, George W.	Colburn	R	Rainey, H. W.	Lafayette	R
Crouse, D. H.	Dayton	R	Riddle, H. D.	Battle Ground	R
Crouse, J. H.	Dayton	R	Rush, M. A.	Battle Ground	R
Dartay, J. H.	Battle Ground	R	Scott, James A.	Odel Corners	R
Dunbar, James.	Battle Ground	R	Seawright, S. R.	Lafayette	R
Dunhart, M.	Lafayette.	R	Shill, C. W.	Lafayette	R
Fickle, J. M.	Stockwell	A	Shucker, Mrs. E.	Colburn	I
Fifeid, Mrs. A. P.	Lafayette.	H	Simpson, John	Romney	R
Fox, R. C.	Lafayette	I	Simpson, John F.	Romney	R
Fox, S. R.	Lafayette.	I	Smith, J. Miller	Lafayette	H
Goldsberry, S. S.	Montmorency	R	Snyder, Leander	Lafayette	I
Heath, John H.	West Point.	E	Spaulding, Joseph	West Lafayette	R
HALL, J. T.		R	Speitel, H. B.	Lafayette	R
Hunt, Cyrus E.	Odel	R	Strother, L. T.	Battle Ground	R
Ingersoll, B. T.	Lafayette	R	Sutton, C. C.	Romney	R
Ingersoll, Joel M.	Lafayette	R	Vinnedge, W. W.	Lafayette	R
Irwin, L. M.	Lafayette	R	Walker, W. S.	Lafayette	R
Jones, Asa F.	Lafayette	R	Wall, John F.	Clark's Hill	R
Kearstian, Elizabeth.	Lafayette	A	Washburne, Geo. M.	Lafayette	E
Kincaid, W. S.	Clark's Hill	R	Washburn, Samuel S.	Lafayette	I
Kirkpatrick, G. W.	Culvers	R	Weaver, C. H.	West Point	R
Koonse, J. B.	Lafayette	R	Webster, John C.	Lafayette	R
Labarree, Wm.	Clark's Hill	R	Wilson, James W.	Lafayette	R
Leonard, W. J.	Lafayette	R	Workman, J. M.	Battle Ground	R
McKinsey, Wm. M.	Octagon	R	Yeager, William	Glenn Hall	R
Minor, Nicholas	Lafayette.	R	Yount, Silas T.	Lafayette	R

Regular, 34; Homeopathic, 3; Eclectic, 3; not stated, 40.

Tipton County.

Armfield, T. O.	Hobb's Station.	R	Hall, Margaret	Goldsmith	R
Austin, Winsor.	Windfall	R	Jessup, John T.	Curtisville	R
Baker, A. J., (dead)	Tipton	R	Lindsey, James P.	Sharpsville	R
Bell, T. E.	Ft. Wayne	R	McAlister, Lewis	Windfall	R
Batman, F. M.	Tipton	R	Moore, Mary	Tipton	R
Campbell, D. R.	Normanda	R	Newcomer, M. V. B.	Tipton	R
Cooper, John	Sharpsville	R	Pitzer, A. B.	Tipton	R
Collins, G. M.	Tipton	R	Rubush, D. P.	Sharpsville	R
Doan, N. W.	New Lancaster	R	Reynolds, G. E.	Goldsmith	R
DICKEY, A. S.	Tipton	R	Schwartz, Catharine	Shielville	R
Davis, Rachel	Shielville.	R	Somers, J. A.	Groomville	R
Evans, H. G.	Tipton	R	Spitzruesser, J. L.	Windfall	R
Glass, W. M.	Shielville.	R	Vickrey, A. M.	Tipton	R
Gossett, James M.	Normanda	R	Vickrey, M. V. A.	Tipton	R
Groves, J. M.	Tipton	R	Van Nuss, William	Tipton	R
Green, W. A.	Kempton	R	Ward, L. B.	Kempton	R
Hazzard, S. S.	Curtisville	R	Whelchell, T. C.	Goldsmith	R
Heath, W. N.	Sharpsville.	R	Weaver, Sarah	Groomsville	R
Hildrup, J. R.	Windfall	H	Wood, George C.	Windfall	R
Horne, J. A.	Windfall	R	Zeek, F. S.	Windfall	R

Regulars, 34; Homeopathic, 1; not stated, 7.

Union County.

Name.	Post Office.	School.	Name.	Post Office.	School.
Chitwood, Geo. R.	Liberty	R	Masters, J. M.	Billingsville	R
Chitwood, Frank	Liberty	R	Seyles, Geo.	Liberty	R
Cook, F. S. W.	Billingsville	E	Shriner, W. W.	Liberty	E
Edsell, H. H.	Billingsville	E	Squire, E. A.	Liberty	E
Hutchinson, B.	Liberty		Sumpter, J. A.	College Corner	
Hawley, A. H.	College Corner	R	Smith, J. A.	Brownsville	R
Herron, N.	Liberty	H	Smith, F.	Brownsville	R
Hastings, Z. B.	Billingsville	E	Scott, U. L.	Liberty	P-M
Kell, S. D.	Liberty		THOMPSON, E. C.		H
Moore, H.	Liberty	R	Williams, O. N.		H

Regular, 8; Homeopathic, 3; Eclectic, 5; Physio-Medico, 1; not stated, 3.

Vanderburgh County.

Achilles, F. W.	Evansville	R	Johnson, L. G.	Evansville	R
Allen, S. R.	St. Wendell	R	Kerth, J. H.	Evansville	R
Alexander, Maria	Evansville	A	Knapp, Charles	Evansville	R
Allison, Joseph	Zipp P. O.	R	Kress, Oscar D.	Evansville	R
Ames, R. P.	Evansville	R	Kepfinger, M. F.	McClean Co., Ky.	R
Ashford, H. S.	Evansville	R	Saval, Wm. J.	Evansville	R
Armistead, R. A.	McCutchansville		Loomis, Chas. A.	Evansville	R
Barbary, Mrs. C. M.	Evansville	A	Lining, Chas. E.	Evansville	R
Babcock, W. D.	Evansville	R	Lintheum, Edward	Evansville	R
Bacon, O. P.	Evansville	R	McCoy, P. Y.	Evansville	R
Bray, M. J.	Evansville	R	McDill, J. B.	Armstrong	R
Beard, S. C.	Evansville	E	Minturn, J. C.	McCutchansville	R
Begley, B. W.	Inglesfield	R	McClurkin, J. C.	Evansville	R
Bockenbringer, M. L.	Evansville	A	McClaren, Dr.	Evansville	R
Bocker, Caroline	German Tp	A	Moore, D. A.	Evansville	R
Bryan, A. H.	Evansville	R	Mott, Christina	McCutchansville	A
Bryan, T. L.	St. Wendel	R	Morgan, Mary J.	Cypress	A
Buhmeier, Lissette	Evansville	A	Montoux, Chas. G.	Kasson	R
Caldwell, Matilda	Evansville	A	Mulhausen, M.	Evansville	R
Carter, E. L.	Evansville	R	Neel, W. D.	Evansville	R
Center, Geo. F.	Evansville	R	Ohlman, W.	St. Joseph	R
Compton, J. W.	Evansville	R	Owen, A. M.	Evansville	R
Cowden, W. C.	Evansville	H	Owen, John E.	Evansville	R
Corlew, R. M.	Evansville	R	Pennington, J. J.	Evansville	R
Cody, James W.	Evansville	R	Phipps, J. M.	Evansville	R
Cosby, Geo. P.	Evansville	R	Pirnat, John	Evansville	R
Crawford, D. A.	Evansville	R	Pollard, W. S.	Evansville	R
Clement, Benj.	Evansville		Purdue, Geo. C.	Evansville	R
Davidson, Wm. R.	Evansville	R	Ralston, Wm. G.	Evansville	R
Davis, F. L.	Evansville	H	Ruark, S.	Kratzville	R
Day, B. J.	Evansville	R	Rucker, T. N.	Evansville	R
Dow, John L.	Evansville	R	Rose, W. B.	Evansville	R
Fessinger, John	Union Tp	R	Runcie, Geo. M.	Inglesfield	R
Fritsch, Ludwig	Evansville	R	Sawyer, F. W.	Evansville	R
Fritsch, W. A.	Evansville	R	Scheller, F.	Evansville	R
Failing, Walter	Evansville	R	Schmecker, Sophia	Evansville	A
Furman, B. B.	Henderson, Ky.	R	Schuyler, P. L.	Evansville	R
Furman, L.	Henderson, Ky.	R	Shulz, Theo.	Evansville	H
Gumberts, A. R.	Evansville	K	Sieffert, Elizabeth	Evansville	A
Gilbert, George	Evansville		Snell, F. A.	Union Tp	R
Girondel, Mrs. A.	Evansville	A	Spencer, E.	Evansville	R
Green, A. E.	Evansville	R	Steiler, Mrs. Mary	Evansville	A
Green, W. S.	Evansville	R	Stillson, J. O.	Evansville	R
Hargan, H. C.	Evansville	R	Taylor, T. H.	Evansville	H
Hartloff, Richard	Evansville	R	Tyrrell, C. C.	Evansville	H
Hayden, A. M.	Evansville		Venneman, Robert	Evansville	R
Heiman, Anna M.	Evansville	A	Vollmar, J.	Evansville	R
Herr, L. S.	Evansville	H	Vitzdam, William	Evansville	R
Hill, Dora	Evansville	A	Wright, E. D.	Evansville	R
Hodson, Geo. P.	Evansville	R	Williams, E. S.	Fair Play	R
Holeman, Jefferson	Evansville	R	Walker, Edwin	Evansville	R
Hooker, H. H.	Oak Dam	R	WALKER, G. B.	Evansville	R
Helms, Benj. R.	Henderson, Ky.	R	Weinheimer, Mrs. E.	Evansville	A
Irwin, J. W.	Evansville	R	Wilde, C. A.	Evansville	R
Jenkins, Dr.	Fair Play		Williams, Floyd	Evansville	R
Jensen, Louisa	Evansville	A	Willig, A. P.	Evansville	R
Jones, H. G.	Evansville	R	Wulkop, A.	Evansville	R
Jones, R. N.	Evansville	R	Yates, G. W.	Evansville	
Johnson, E. W.	Evansville	R	Zengler, Barbara	Evansville	A

Regulars, 89; Homeopathic, 6; Eclectic, 1; not stated, 22.

Vermillion County.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Barnes, Jas. A. . . .	Gessie	R	McMeen, Jas. . . .	Eugene	R
Bogart, Jno. H. . . .	Clinton	R	Nebeker, Henry . . .	Clinton	R
Eaton, Henry C. . . .	Toronto	R	Newton, G. O. . . .	Toronto	R
Flaugher, E. A. . . .	Eugene	R	Paxson, Cyrus C. . .	Summit Grove . . .	R
HALL, N. L.	Newport	R	Spottswood, E. T. . .	Perryville	R
Hall, Wm. S.	Gessie	R	Shepherd, Henry L. .	Clinton	R
James, H. H.	St. Bernice . . .	R	Sheppard, Lewis . . .	Newport	R
Johnson, David B. . .	Perryville	R	Sheppard, Hiram . . .	Dana	R
Keys, Otis M.	Dana	R	White, Chas. M. . . .	Clinton	R
Keys, C. F.	Dana	R	Wallace, Jas.	Newport	R
Kinderman, Alex. . . .	Eugene	R	Watkins, H. T. . . .	St. Bernice	R
Mack, Erastus	Hillsdale	E	Webb, Jas. B.	Perryville	E
Marlow, Austin	Clinton	I			

Regular, 22; Eclectic, 2; not reported, 1.

Vigo County.

Armstrong, W. P. . . .	R	Melton, Seth B. . . .	E
Austin, Mrs. H. H. . .	H	Moore, Wilmot. . . .	H
Alben, Josephine F. . .	H	Moorhead, Thomas W.	R
Belt, Richard	R	Magoon, John H. . . .	F. D.
Bennett, Stephen M. . .	R	McClain, Lesly	R
Collings, W. O. . . .	R	McJohnson,	R
CRAPO, J. R.	R	McLaughlin, Jas. M. .	R
Crapo, G. W.	R	Mann, Henry D. . . .	R
Carson, L. E.	R	McCorkle, T. H. . . .	R
Crawley, J. A.		Nevergall, J. W. . . .	
Crawley, L. N.		Phipps, J. J.	
Crawley, John B. . . .		Pickens, Francis M. . .	R
Dolson, J. B.	R	Poindexter, John. . . .	R
Drake, Thos. G. . . .	R	Pinson, A. J.	R
Elder, W. R.	H	Richardson, S. C. . . .	P-M
Ewart, J. B.	R	Russell, C. W.	R
Eisheberger, W. C. . . .	R	Roberts, W. H. . . .	R
Erskin, A. C.	R	Rand, Gertrude	
Foulston, Samuel W. . .	R	Smith, J. J.	
Glover, Elmer E. . . .	R	Stetson, E. A.	R
Gerstmeier, Chas. . . .	R	Swafford, Ben. F. . . .	R
Grubb, J. B.	R	Spencer, W. B. . . .	R
Givens, Chas. C. . . .	R	Swap, J. H.	R
Hyde, John.	H	Sutton, R. A.	
Hall, W. H.	R	Stark, W. I.	
Hall, C. T.	R	Stuss, James G. . . .	
Hunt, John S.	R	Spain, A. W.	R
Heady, W. S.	R	Stock, L. K.	E
Humphry, A. J.	R	Shickle, John A. . . .	R
Holloway, M.		Stevenson, R. D. . . .	R
Jack, J. J.		Stevenson, W. H. . . .	R
Kuster, C. E.	R	Secrist, Mary	A
Kenedy, T. W.	E	Taylor, Henry W. . . .	H
King, W. H.	R	Thompson, J. C. . . .	R
Kilgore, A. W.	H	Tomlin, B. F.	I
Littlejohn, H. C. . . .	E	Tomlin, J. A.	R
Loachman, J. S. . . .	E	Willien, L. J.	R
Langhead, Jas. T. . . .	R	Waters, Moses H. . . .	H
Lee, W. M.	P-M	Walkins, S.	R
Long, Henry	E	Weinstein, L. J. . . .	R
Mitchel, J. D.	R	Young, Stephen J. . . .	R

Regular, 52; Homeopathic, 7; Eclectic, 4; Physio-Medical, 2; Faith doctor, 1; not stated—15.

Wabash County.

Ader, Henry	Somerset	R	Donaldson, E. F. . . .	Wabash	R
Blount, R. F.	Wabash	R	Dunn, W. A.	Wabash	E. H.
Brady, T. F.	Lincolnville . . .	R	Dicken, J. L.	LaFontain	R
Bricker, Wm.	Lincolnville . . .	E	Dicken, C. L.	LaFontain	R
Barr, J. W.	New Harrisburg . .	R	Ellis, C. S.	Wabash	E
Biggerstaff, J. T. . . .	La Gro	R	FORD, J. H.	Wabash	R
Bloomer, F. H.	Pleasant View . . .	R	Fish, W. S.	Somerset	E
Brown, J. U.	Wabash	R	Goshorn, D. A. . . .	North Manchester .	R
Braddock, G. H. . . .	Roann	R	Ginther, Daniel	North Manchester .	E
Carper, A. J.	Liberty Mills . . .	R	Hunter, T. C.	Wabash	H

Wabash County—Continued.

<i>Names.</i>	<i>Post Office.</i>	<i>School</i>	<i>Names.</i>	<i>Post Office.</i>	<i>School</i>
Hale, M. M.	La Gro	R	Ohnurt, E. C.	North Manchester . . .	H
Holloway, A. L. . . .	Wabash	E	Renner, J. H.	La Gro	R
Jordan, L. W.	Roann	E. H	Renner, M. E.	La Gro	R
Jones, J. H.	Roann	R	Richards, John	North Wabash	R
Jessup, L. F. Miss . .	Wabash	R	Smith, A. J.	Wabash	R
Kidd, G. P.	Roann	R	Stradly, D. W.	Wabash	R
Kantz, John	Dora	R	Smith, D. W. Mrs . . .	Wabash	C
Lambert, G. W.	Urbana	E	Shellhamer, D. C. . . .	Puckerbrush	R
Lower, M. O.	North Manchester . . .	R	Studley, J. W.	LaFontain	R
Modraer, Morris . . .	Wabash	R	Shaffer, Philip	North Manchester . . .	R
Minnick, H. R.	Treaty	R	Simon, A.	North Manchester . . .	I
Moore, P. G.	Rich Valley	R	Thomas, A. McD	LaFontain	R
Mumger, W. A.	Liberty Mills	N. R	Welchinner, J.	North Manchester . . .	H
Mooney, H. C.	Laketon	R	Winton, Horace	North Manchester . . .	R
McGrew, W. H.	LaFontain	E	Winton, C. H.	North Manchester . . .	R
Oneal, Laughlin	Somerset	R	Wells, Wm. Y.	Laketon	E
Oneal, Oran	Somerset	R	Wale, F. M.	Urbana	R

Regular, 38; Homeopathic, 5; Eclectic, 8; Indian, 1; Clairvoyant, 1; not stated, 1.

Warren County.

Aborn, Orin.	Marshfield	R	Osburn, C. W.	West Lebanon	R
Birch, E. R.	State Line City	R	Osburn, C. N.	Rainesville	R
Brown, Nathan	State Line City	E	Porter, A. M.	West Lebanon	R
Claypool, R. W.	Williamsport	R	Roseberry, J. A.	Independence	R
Campbell, T. B.	West Lebanon	R	Reid, S. M.	Independence	R
DeHART, JACOB	Williamsport	R	Ross, Justin	Williamsport	R
Fleming, Jackson . . .	West Lebanon	R	Stewart, J. L.	Carbondale	R
Fenton, S. C.	Pine Village	E	Simmerman, Mrs.	Carbondale	A
Gray, Dr.	Green Hill	E	Grent, J. H.	Johnson	E
Hoffman, C. H.	Rainesville	R	Vick, W. B.	Greenhill	E
McMullen, J. W.	Pine Village	R	Wickoff, R. H.	Rainesville	E

Regular, 17; Eclectic, 5; not stated, 1.

Warrick County.

Beeler, Jerome	Booneville	H	Fuller, John	Scalesville	R
Bradley, J. H.	Folsomville	E	Keefer, Chas	Booneville	R
Brown, A. P.	Heilman	R	Keegon, C. J.	Canal	R
Camp, G. H.	Lynville	E	Knapp, Mrs. L	Booneville	A
Camp, J. W.	Lynville	E	Lake, George	Newberg	R
Coleman, S. A.	Chandler	A	Magenheimer, P.	Eiberfield	R
Daily, T. G.	Booneville	R	McCoy, T. J.	Eby	R
Daily, W. W.	Booneville	R	McKinley	Folsomville	R
Davis, Mrs. Nancy . . .	Lynville	A	McVey, W. H.	Selvin	R
Deforest, D. A.	Booneville	R	Newton, J. A.	Booneville	O
Dubois, J. N.	Newburg	H	Park, C.	Canal	R
Edgeington, Jesse . . .	Yankeeetown	R	Patterson, P. M.	Booneville	H
Hammel, J. T.	Wheatonville	R	Perrigo, Mrs. E.	Booneville	A
HARGAN, T. J.	Booneville	R	Quatt, A.	Folsomville	A
Hart, S. H.	Folsomville	R	Rusher, Mrs. E.	Selvin	A
Hedden, G. J.	Selvin	R	Scales, T. D.	Booneville	R
Hedden, W. J.	Selvin	R	Scales, W. B.	Booneville	R
Hewins, W. A.	Chandler	R	Smith, Tom.	Canal	R
Hopper, Mrs. E.	Lynville	A	Temple, W. R.	Selvin	R
Howard, T. M.	Booneville	R	Tillman, J. R.	Newburg	R
Hunt, William	Lynville	R	Tyner, S. L.	Booneville	R
Hatfield, B. F.	Boonville	R	Watson, W. D.	Tennysen	R
Jones, L. M.	Tennysen	R	Wilson, W.	Yankeeetown	R
Jones, T. B.	Lynville	R			

Regular, 33; Homeopathic, 3; Eclectic, 3; not stated, 7.

Washington County.

Names.	Post Office.	School.	Names.	Post Office.	School.
Avery, William R.	Fredericksburg	R	McCowen, John	Hitchcock's Station	E
Baker, T. H. B.	Pekerm	R	McPheeters, John S.	Hardensburg	R
Bare, J. R.	Salem.	R	Moser, J. G.	Bartle	R
Rosely, M. E.	Hardensburg	R	Mott, Murlino C., Mrs.	Saltilloville	A
Bradshaw, A. E.	Peck's Mill.	R	MURPHY, C. W.	Salem.	R
Bright, W. H.	Martinsburg	R	Neal, G. L.	Salem.	R
Child's, R. B.	Clayville	R	Neyman, E. M. C.	Saltilloville	R
Crim, Martin	Salem	P-M	Neyman, H. P.	Saltilloville	R
Duff, S. W.	Salem.	R	Oatley, J. H.	New Philadelphia	R
Deweese, Geo. W.	Fredericksburg	R	Overman, E. T.	Salem	P-M
Davis, Sick, Mrs.	Bartle	A	Paynter, C. L.	Salem.	R
Ferre, Isaac	Livonia.	R	Rathburn, Charles	Salem.	R
Harrod, S. H.	Canton	R	Schoonover, Wm. S.	Hardensburg	R
Hancock, Geo. S.	Campbellsburg	R	Spurgeon, A. N.	South Boston.	R
Hogsett, J. W.	Saltilloville	R	Thomas, T. M.	Little York.	R
Herron, T. W.	Little York	R	Tucker, B. W.	Salem	R
Hoggett, M. R.	Salem	P-M	Tucker, T. M.	Salem.	R
Hon, Geo. W.	Hardensburg	R	Voyles, V. A.	Livonia.	R
Hudson, L. H.	Little York	R	Perkiser, Wm. J.	Livonia.	R
Layman, J. H.	Chestnut Hill.	R	Watts, Mary	Farabus Station	A
Lewelling, George	Little York	P-M	Weir, A. G.	Kossuth	R
Martin, R. W.	Campbellsburg	R	Wilson, R. I.	Salem.	R
Maxedon, R. W.	Hardensburg	R			

Regulars, 33; Eclectics, 1; Physio-Medico, 4; not stated, 6.

Wayne County.

Allen, J. B.	Hagerstown	R	Johnson, L. C.	Fountain City	R
Ballard, N. H.	Richmond	R	Jay, Wm. C.	Richmond	E
Boppart, A.	Richmond	R	Kelsey, L. S.	Richmond	R
Bradway, C. F.	Richmond	R	Kersey, C. H.	Richmond	R
Bond, C. S.	Richmond	R	King, J. E.	Richmond	R
Baer, O. P.	Richmond	H	Kitzmiller, F. E.	Richmond	R
Benham, H. R.	Richmond	E	Kersey, S. H.	Centreville	R
Battin, D. W.	Richmond	P-M	King, Wm. F.	Centreville	R
Bowers, Mrs. M. L.	Richmond	R	Lowe, Geo. N.	Hagerstown	R
Buntin, E. A.	Green's Fork	R	Loar, A.	Richmond	P-M
Brown, Jesse R.	Green's Fork	R	Logan, W. W.	Richmond	P-M
Boyd, H. B.	Cambridge City	R	McTagg rt, Chas.	Dublin	E
Bunnel, R. W.	Green's Fork	R	Muller, Bernard	Richmond.	R
Boyd, S. S.	Dublin	R	Mitchell, S. R.	Richmond.	R
Blount, C. N.	Hagerstown	R	Morrow, Sarah J.	Richmond.	R
Bell, John S.	Dublin	R	Mendenhall, W. O.	Richmond.	R
Canaday, N. F.	Hagerstown	H	Mann, L. S.	Richmond.	H
Castle, J. A.	Richmond	R	McDivitt, E. G.	Richmond.	H
Colburn, C. P.	Richmond	R	McSimpson, John	Richmond	R
Carter, N. P.	Green's Fork	R	McClellan, J. A.	Richmond.	R
Courtney, J. T.	Whitewater	R	Marting, Maria E.	Richmond	A
Clark, J. B.	Economy	R	Mauk, John R.	East Germantown	R
Clark, J. M.	Economy	R	Marshall, J. V.	Whitewater	R
Crismond, J. W.	Abington	E	Moore, S. H.	Greenfork.	R
Cecil, A. A.	Nettle Creek	R	Minger, Jas. E.	Abington	R
Dwiggins, M. F.	Richmond	R	Neff, W. W.	Centreville	E
Davis, T. H.	Richmond	H	Pritchett, J.	Centreville	R
Day, Geo. Ward	Dublin	H	Pittman, Henderson	Hagartown	H
Emmons, J.	Richmond	H	Pennington, Joel.	Milton	R
Evans, Wm. H.	Boston	R	Prezinger, J. W.	Richmond.	R
Euright, M. C.	Richmond	E	Rutledge, J. W.	Cambridge City.	R
Furnas, Robt. F.	Richmond	H	Rife, J. J.	Boston.	R
Griffin, W. T.	Whitewater	E	Reed, Wilson.	Centreville	R
Graham, W. B.	Cox's Mill	E	Rusk, Anne E.	Richmond	P-M
Gordon, G. C.	Centreville	R	Ross, Jas. K.	Richmond	R
Grosvenor, E. B.	Richmond	H	Robbins, G. W.	Economy	R
Hubbard, Elias	Dublin	R	Study, Jos. N.	Cambridge City	R
Huff, O. N.	Fountain City	R	Southworth, A.	Dublin	H
Harris, J. S.	Fountain City	R	St. Clair, J. W.	Milton	R
HIBBERD, JAS. F.	Richmond	R	Summers, J. B.	Milton	R
Harriman, S. B.	Richmond	R	Sweeney, J. F.	Milton	R
Hadley, Edwin.	Richmond	R	Schaefer, E.	Richmond	R
Hobbs, M. W.	Richmond	R	Swallow, Jas. E.	Abington	R
Harris, Jesse M.	Richmond	R	Swallow, Eph	East Germantown	R
Howells, Joseph	Richmond	R	Shoff, J. S.	East Germantown	R
Harold, C. N.	Richmond	P-M	Stonebraker, J. H.	Dalton	R
Helm, W. M.	Williamsburg	E	Tillson, Hosea	Centreville	R
Hiatt, Jas. A.	Economy	R	Thurston, J. M.	Hagerstown	P-M
Iutzi, Joseph	Richuond	R	Thurston, E. H.	Hagerstown	P-M
Jackson, Elma	Cox's Mill	A	Taylor, J. E.	Richmond	R

Wayne County—Continued.

Names.	Post Office.	School	Names.	Post Office.	School
Thomas, Mary F.	Richmond	R	Witmer, B. M.	Milton	E
Thomas, Owen	Richmond	R	Weist, J. Y.	Richmond	R
Tennis, Israel	Richmond	R	Waring, Wm. P.	Richmond	R
Teague, I. P.	Richmond	H	Wolfe, Jos.	Richmond	R
Taylor, L. B.	Dublin	R	Woodard, N. D.	Richmond	P-M
Taylor, L. P.	Williamsburg	E	Williams, Wm.	Whitewater	E
Wayman, J. V.	Cambridge City	R			

Regulars, 65; Homeopaths, 13; Eclectics, 11; Physio-Medicals, 9; not stated, 9.

Wells County.

Ballard, Freeman E.	Dillman	R	Maddox, S. E.	Keystone	R
Bouse, Francis J.	Nottingham P. O.	E	Mason, Leonidas	Bluffton	E
Bruce, John H.	Bluffton	R	Melchony, William	Markle	P-M
Bugh, John W.	Bluffton	E	Melshiemer, C. T.	Bluffton	R
Cassell, Geo. W.	Keystone	E	Metts, A. H.	Ossian	R
Connett, A. W.	Ponito	R	Metts, John J.	Ossian	R
Crum, J. W.	Barber's Mills	R	Morrison, A. A.	Liberty Center	R
Cummins, B. F.	Bluffton	R	Murray, J. E.	Zanesville	R
Cummins, P. R.			Murray, R. V.	Zanesville	R
Davenport, E. P.	Craigville	E	Neff, Isaac N.	Mt. Zion	E
Doster, Hezekiah	Ponito	E	Newman, M. N.	Ossian	R
Fitzpatrick, J. D.	Vera Cruz	R	Puckett, T. J.	Keystone	E
Fulton, Geo. E.	Bluffton	R	Raub, E. D.	Barber's Mills	R
Fulton, John C.	Murray	R	Ryan, Fletcher	Liberty Center	R
Garrett, F. W.	Liberty Centre	R	Shroader, David	Murray	R
GORRELL, A. G.	Bluffton	E	Spaulding, L. A.	Bluffton	R
Horton, Edward R.	Bluffton	E	Waldron, R. A.	Nottingham	R
Horton, Theo.	Bluffton	R	Walser, J. A.	Vera Cruz	E
Johnson, E. M.	Dillman	E	Wayman, J. V.	Cambridge City	R
Kean, R. W.	Keystone	E	Weer, Mrs. Mary A.	Bluffton	E
Keith, E.	Hagerstown	E	Witmer, B. M.	Milton	E
Lanning, Joseph P.	Nottingham	R			

Regulars, 27; Eclectics, 13; Physio-Medical, 1; not stated, 2.

White County.

Aydelotte, Wm.	Badgers Grove	R	McAllister, J. W.	Idaville	R
BUSHNELL, S. B.	Monticello	R	Medavis, John	Brookston	R
Ballou, A. B.	Burnettsville	R	McKillop, Jane	Wolcott	E
Baugh, W. J.	Brookston	R	Oben, R. R.	Idaville	E
Barcus, Eliza	Dern P. O.	A	Palmer, R. B.	Idaville	E
Bundle, J. W.	Idaville	E	Pritchett, Lamin	Idaville P. O.	A
Clark, A. J.	Monticello	R	Robison, F. B.	Monticello	E
Cowgen, S. R.	Monticello	E	Ramsey, L.	Monon	R
Clayton, Geo. R.	Monon	R	Reed, J. T.	Monon	R
Dern, A. J.	Dern P. O.	E	Spencer, Wm.	Monticello	R
Delzell, R. M.	Reynolds	R	Scott, Caleb	Monticello P. O.	P-M
Fagg, J. W.	Monon	R	Sampson, W. H.	Brookston	E
Fross, Joseph A.	Yeoman, Carroll Co.	E	Smith, J. T.	Brookston	R
Grunt, F. A.	Wolcott	R	Sluyton, Samuel D.	Reynolds	E
Henry, L. W.	Burnettsville	E	Small, H. E.	Wolcott	E
Holloway, J. H.	Monticello	E	Smith, H. N.	Wolcott	E
Jones, A. B.	Burnettsville	E	Wetty, Isadore	Flowerville	P-M
Kent, M. C.	Chalmers	E	Wittenburg, Caroline	Reynolds	R
Kelly, D. M.	Brookston	R	Woolly, M. N.	Headlee P. O.	E

Regular, 18; Eclectic, 12; Physio-Medical, 2; not stated, 4.

Whitely County.

Ammerman, D.	Columbia City	R	Louder, Christina	Larwill	R
Austin, Stephen	Etna	R	Magers, F. M.	Churubusco	R
Criswell, Jno. F.	Churubusco	R	MARSHALL, D. M.	Columbia City	R
Coyle	Etna	R	Merriman, E.	South Valley	R
Egolf, H. M.	Collamer	R	Mitten, A. P.	Columbia City	R
Everhard, E. L.	South Whitely	R	Puet, B. F.	Land	R
Fisher	Collamer	R	Richards, Jno. R.	Land	E
Grizier, T. G.	Collins	R	Salmon, J. C.	Churubusco	R
Ireland, M.	Columbia	R	Scott, J. W.	Etna	R
Kirkpatrick, D. A.	Larwill	E	Squires, James	Churubusco	R
Kitcart, N. I.	Columbia City	E	Webster, David E.	Larwill	R
Koontz, S.	Land	E	Webster, M. W.	South Whitely	R
Lafollett, T. J.	South Whitely	R	Wenger, N. R.	Coesse	R
Lawrence, I. E.	Columbia City	R	Williams, C. S.	Churubusco	R
Leriville, D. G.	Columbia City	R			

Regular, 26; Eclectic, 3.

RECAPITULATION OF LIST OF PHYSICIANS IN THE STATE.

Regular Physicians	3,290
Eclectics	459
Homeopathic	166
Physio-Meds	144
Indian Doctor	8
Faith Doctor	1
Clairvoyant	2
Miscellaneous and school not stated	626
Total	<u>4,696</u>

Of the above 236 were marked midwives.

E. S. ELDER, M. D.,

Secretary State Board of Health;

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